



# Dell 5130cn Finisher **Service Manual**

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## Version record

Refer to the portion indicated by change bar in each section.

Also refer to the reasons in table below.

Version	Issue date	Note
1 <sup>st</sup>	March 31, 2009	1 <sup>st</sup> issued
2 <sup>nd</sup>	June 10, 2009	2 <sup>nd</sup> issued Introduction - The illustration was reviewed by the externals change. - The illustration was changed or added. Chapter 3:RRP - The procedure of the RRP was reviewed according to the specification change. Chapter 4:Plug/Jack Connector Locations - The illustration was changed. Chapter 6:Principles of Operation - The illustration was reviewed by the externals change. - "3.3.2.3 Sheet/Envelope Select Lever" was added. Chapter 8:Printer Specifications - The printer specification was reviewed according to the specification change.

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# Cautions

Operation contents of this document may be subject to modification without notice.

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## 1. About this manual

This manual is a standard service manual of Dell Inc. containing information required for maintenance of this finisher.

## 2. Marks giving caution

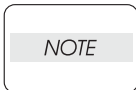
Maintenance operations requiring special cautions or additional information regarding descriptions in this manual are presented as "Warning," "Caution," or "Note," depending on their nature.



***If instructions are not observed, death or serious injury may result.***



**If instructions are not observed, injuries to workers or physical damage to assets (including this finisher) may result.**



**Essentials for procedures, steps, rules, and others.**

***Reference*** *Incidental information to descriptions.*

## 3. Related documents

- Instruction manuals (standard manuals)

Describe the operation and handling of this finisher.

- Performance specifications

Describe in detail various specifications of this finisher.

(In the event of a discrepancy between this manual and the performance specifications, the performance specifications take precedence.)

- Spare parts list

Information on maintenance parts (spare parts) for this finisher.

## 4. Safety

To prevent possible accidents during maintenance operation, you should observe strictly the "Warning" and "Caution" information in this manual.

Avoid dangerous operations and operations out of the scope of this manual.

Various processes not covered by this manual may be required in actual operations, and should be performed carefully, always giving attention to safety.

### 4.1 Power source

Keep the power plug disconnected during the maintenance operation to prevent electric shock, burns and other damages.

If the power supply should be kept connected to measure voltage or for other similar reasons, take sufficient care to prevent electric shock, by following the procedures in this manual.



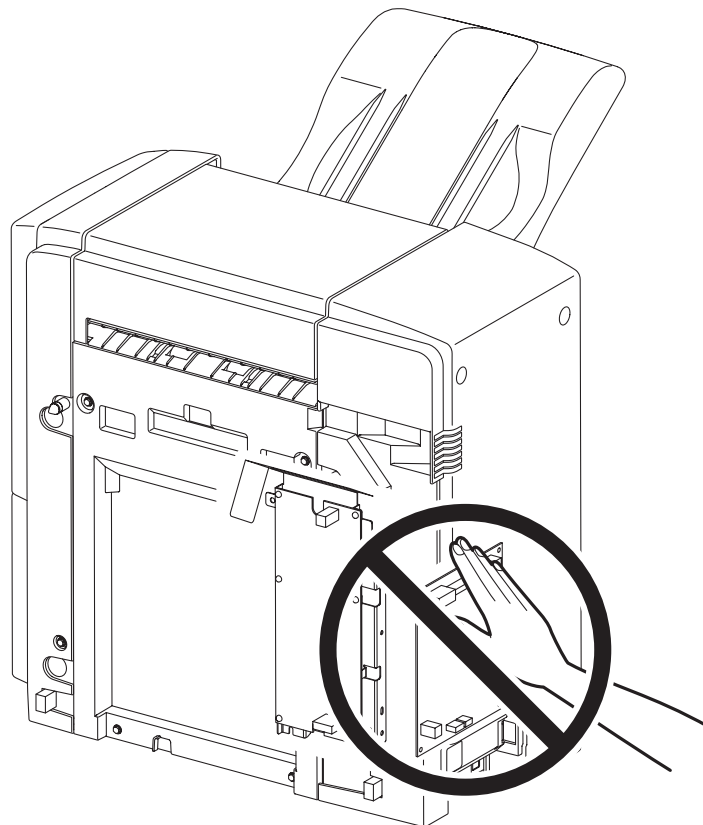
***While the printer is on, never touch live parts if not required.***



***Power is supplied to the power switch / inlet even while the printer is off. Never touch its live components.***



***Do not touch live parts unless otherwise specified.***



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## 4.2 Driving units

When servicing gears or other driving units, be sure to turn off the power switch and unplug the power cord. Drive them manually when required.

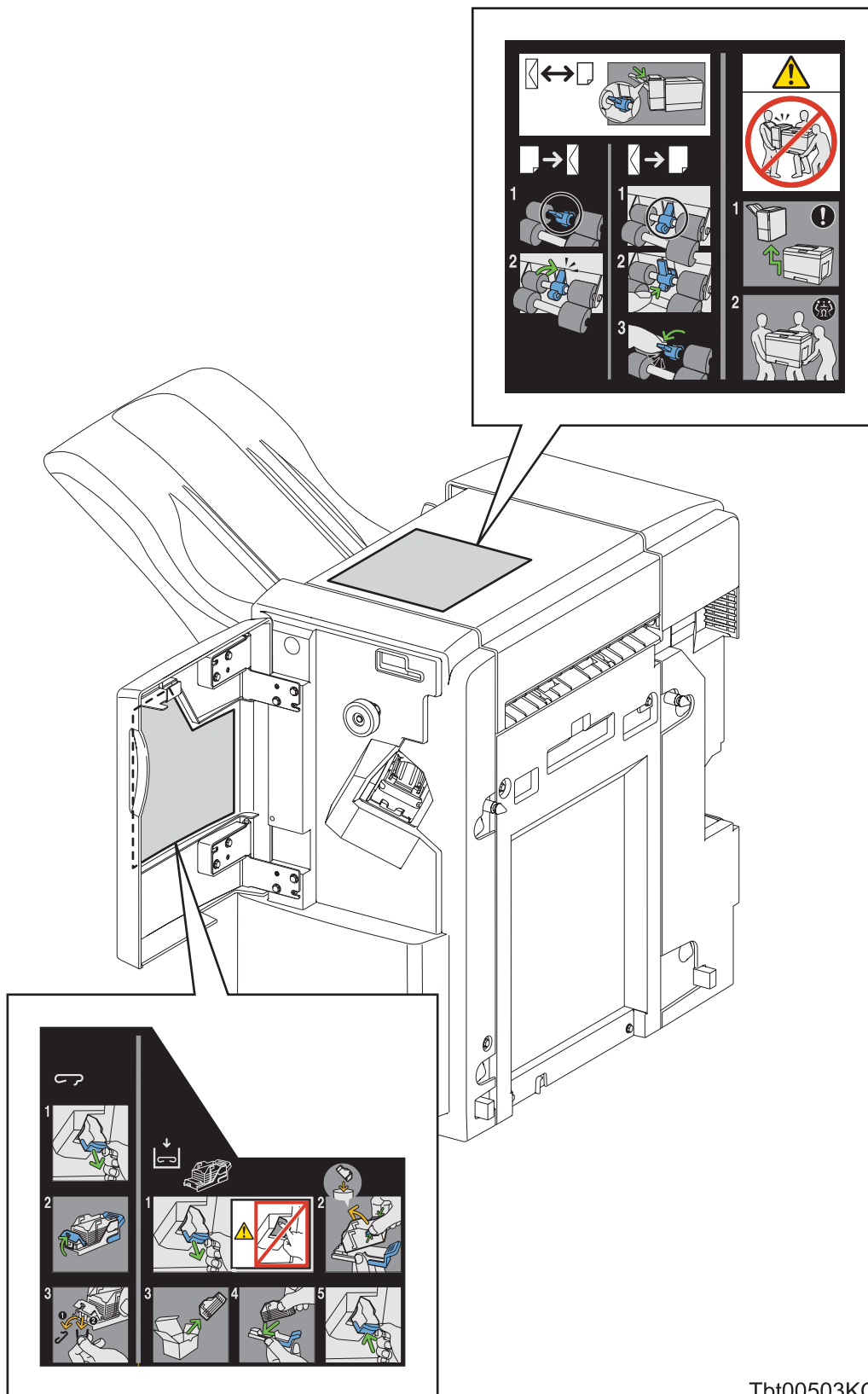


***Do not do the print work removing the cover of the finisher to confirm the operation of driving part.***



### 4.3 Warning/caution labels

Warning labels and caution labels are attached to this finisher to prevent accidents. Check those labels for their peeling or stains when servicing the finisher.



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# Unpacking the Finisher



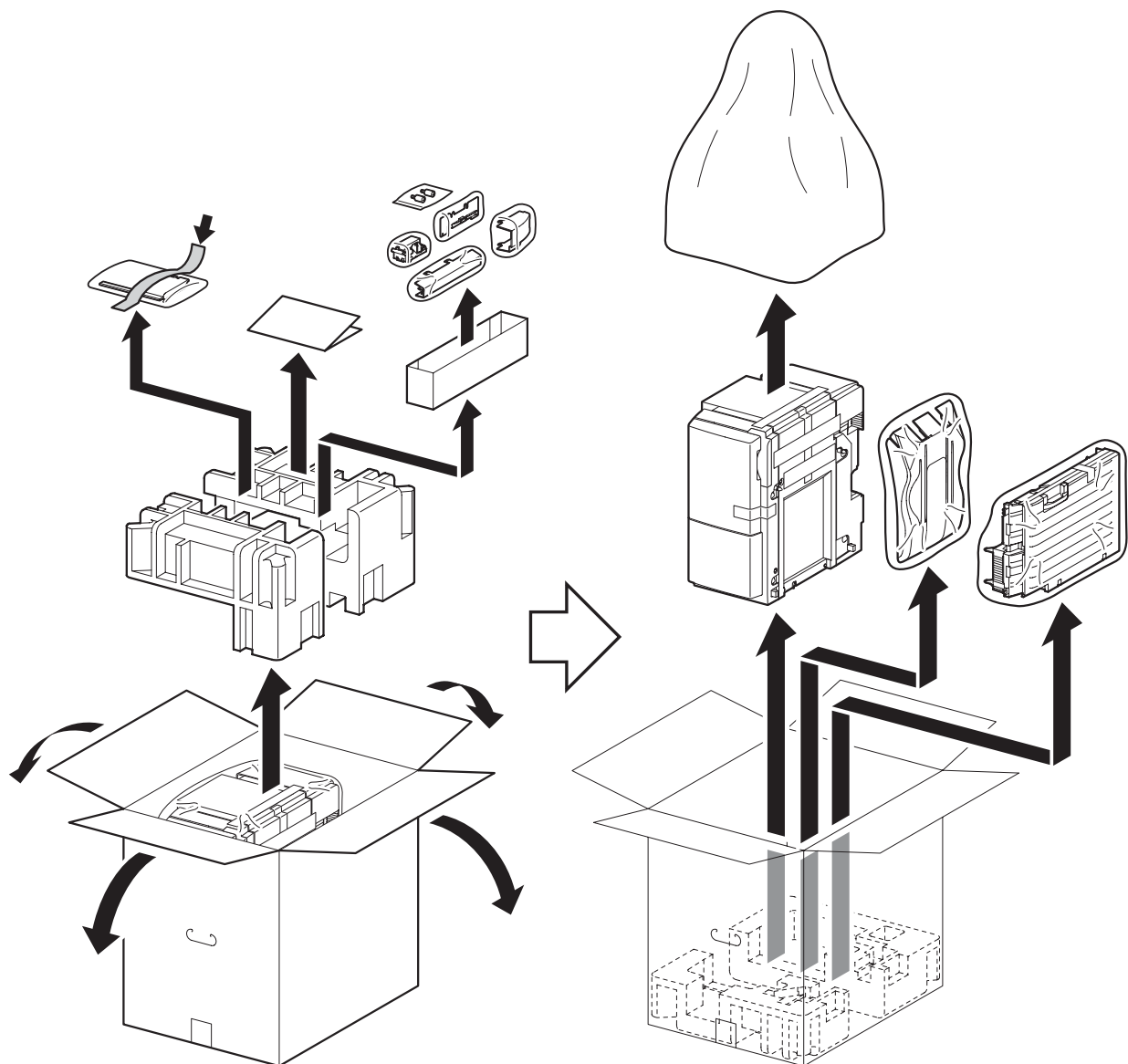
The finisher must be carried horizontally with three or more persons.



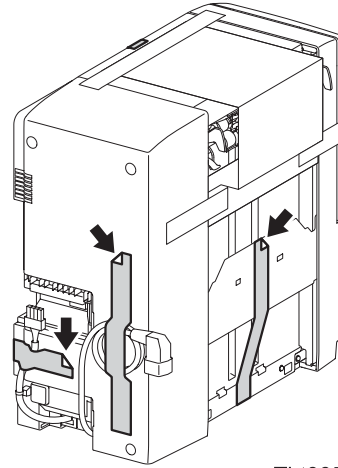
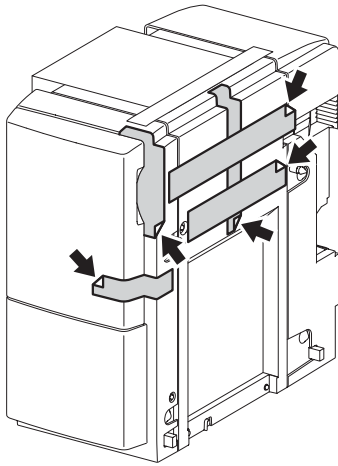
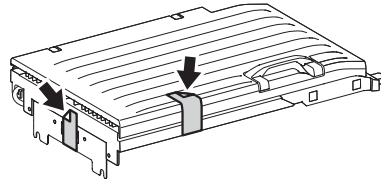
Take extreme care to avoid personal injuries.

Check visually the finisher for evidence of any damages.

Peel all tapes off the finisher.



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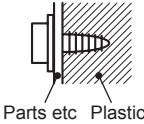
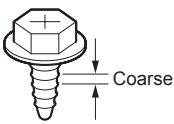

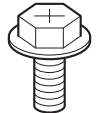
## Chapter 3 Removal and Replacement Procedures (RRPs) CONTENTS

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## 1. Removal and Replacement Procedures (RRPs)

### 1.1 Before Starting Service Procedure

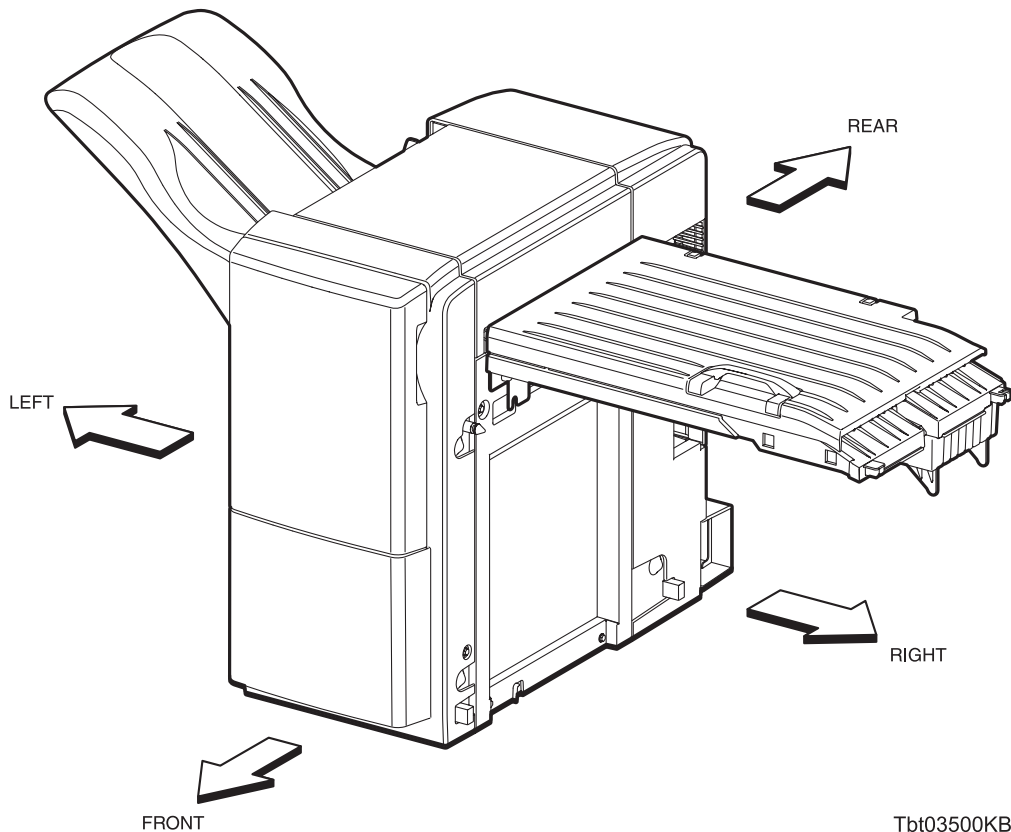
- Start the procedure after turning off the power, and removing the power cord from the outlet.
- Do not apply excessive force to parts to avoid functional damage.
- Since various types of screws are used, ensure that the right screws are used in their right positions.  
Use special caution not to confuse the screws for plastic and the ones for sheet metal, because using the wrong type of screw may result in damage to the screw threads or other troubles.

No.	Type	Application	Shape	How to Distinguish	Points to Be Noted	Major Location
1	<ul style="list-style-type: none"> <li>• Screw for plastic</li> <li>• Silver, flanged, tapping</li> </ul>	Plastic 		<ul style="list-style-type: none"> <li>• Silver-colored.</li> <li>• With flange.</li> <li>• Screw thread is coarser than that of the sheet metal type.</li> <li>• The thread is tapered toward the tip.</li> </ul>	<ul style="list-style-type: none"> <li>• Oblique screwing damages the thread because this screw cuts female threads in the base material as it rotates.</li> </ul>	
2	<ul style="list-style-type: none"> <li>• Screw for metal sheet</li> <li>• Silver, with a flange</li> </ul>	Sheet metal 		<ul style="list-style-type: none"> <li>• Silver-colored</li> <li>• It has a flange.</li> <li>• Diameter of the thread section is uniform.</li> </ul>		

- Wear a wristband or the like wherever possible to remove electrostatic buildup from your body.

## 1.2 General Notes

- The string "(PL X.Y.Z)" appended to the part name in the procedure denotes that the part corresponds to the plate (PL) "X.Y", item "Z" of the Engineering Parts list, and its shape and fitting position can be checked in the Engineering Parts list.
- Directional descriptions used in the procedures are defined as follows:
  - Front : Direction toward you when facing the front of the printer.
  - Rear : Direction opposite to the front when facing the front of the printer.
  - Left : Left-hand direction when facing the front of the printer.
  - Right : Right-hand direction when facing the front of the printer.



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Fig.: Directions Regarding the Printer

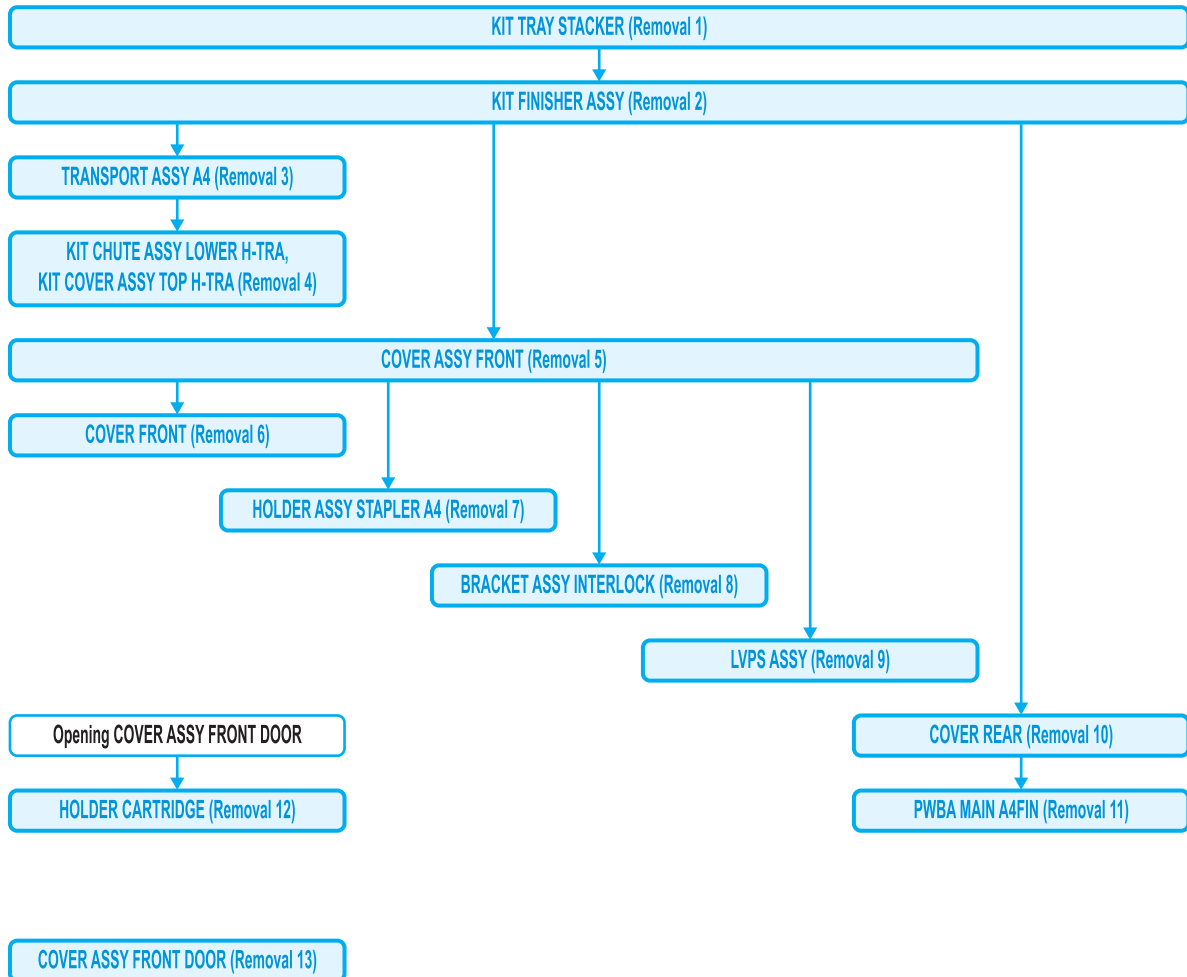
- The string "(RRP X.Y)" that appears in or at the end of the procedure denotes that the related service procedure is described in [RRP X.Y].
- Unless otherwise specified, use a Phillips-head screwdriver to remove the screws shown in the illus.
- Black arrows shown in the illustrations denote moving directions. The numbers assigned to these arrows refer to the order in the procedure.
- Refer to [Chapter 4 Plug/Jack (P/J) Connector Locations] for the positions of connectors (P/J).



## Removal Flows

The components not connected with arrows in the flow below can be removed independently.

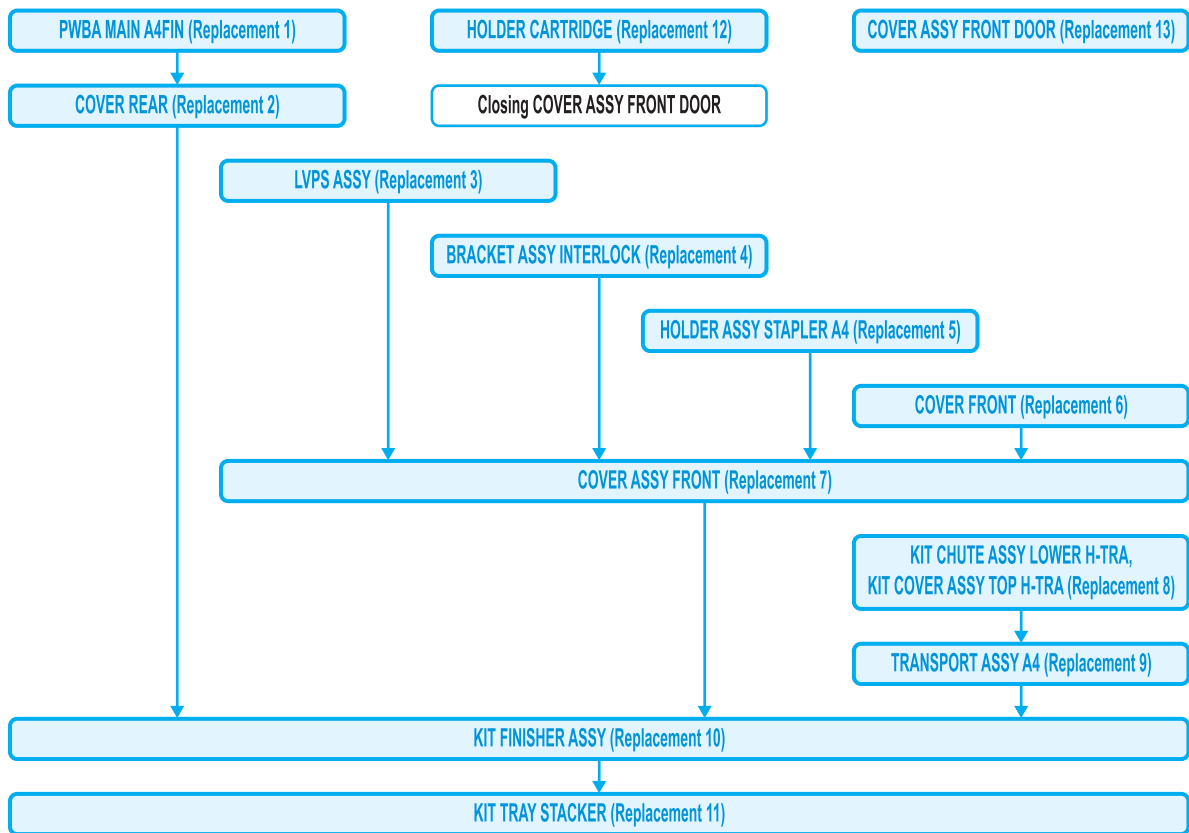
### Finisher Removal Flow



## Replacement Flows

The components not connected with arrows in the flow below can be replaced independently.

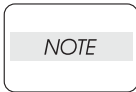
### Finisher Replacement Flow



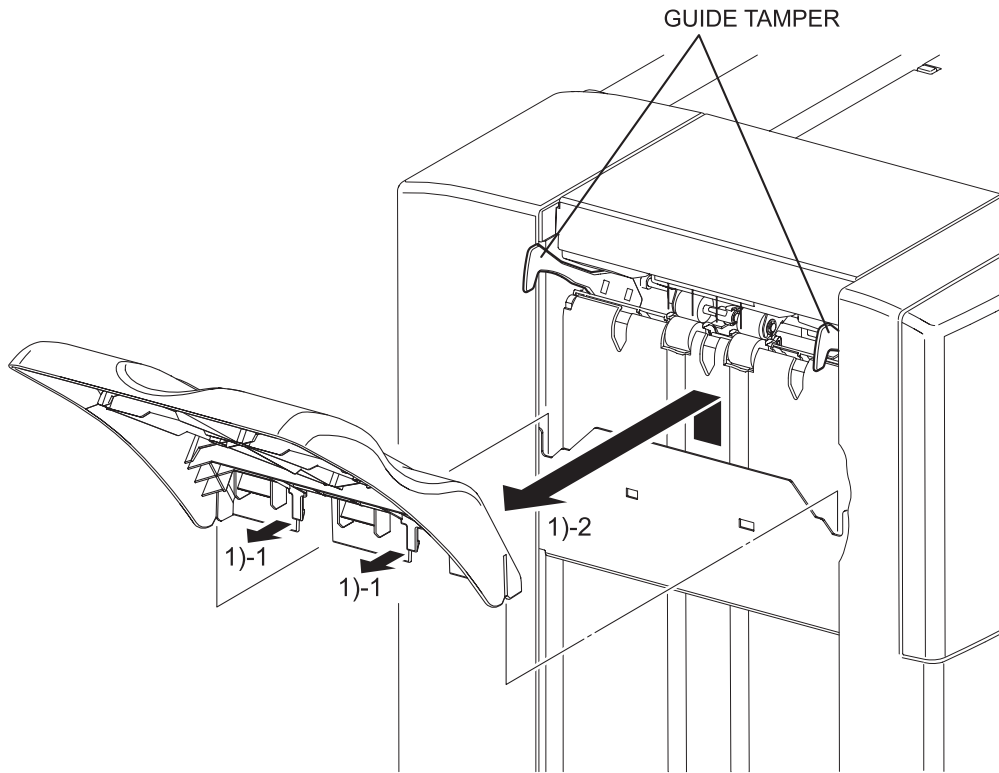
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## 2. Removal Steps

### Removal 1 KIT TRAY STACKER (PL14.1.98)



When performing the following step, use caution not to damage the GUIDE TAMPERS.



- 1) Remove the TRAY STACKER (PL14.1.2) from the FINISHER ASSY by releasing the two hooks of the TRAY STACKER.

**Go to the next removal step:**

### Removal 2 KIT FINISHER ASSY (PL14.1.99)

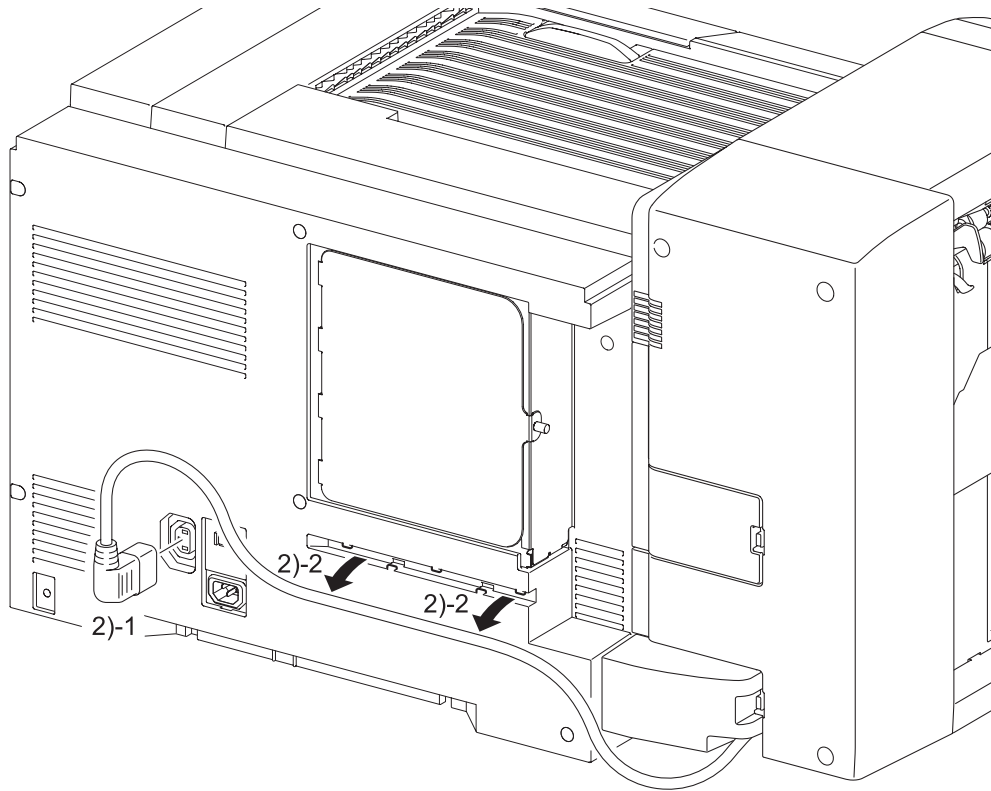
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## Removal 2 KIT FINISHER ASSY (PL14.1.99)

In the following steps, the details of Step 1 are omitted because they are described earlier in this chapter.

Go to the step in parentheses to execute the necessary steps, and then go to Step 2 onward.

- 1) Remove the TRAY STACKER. (Removal 1)

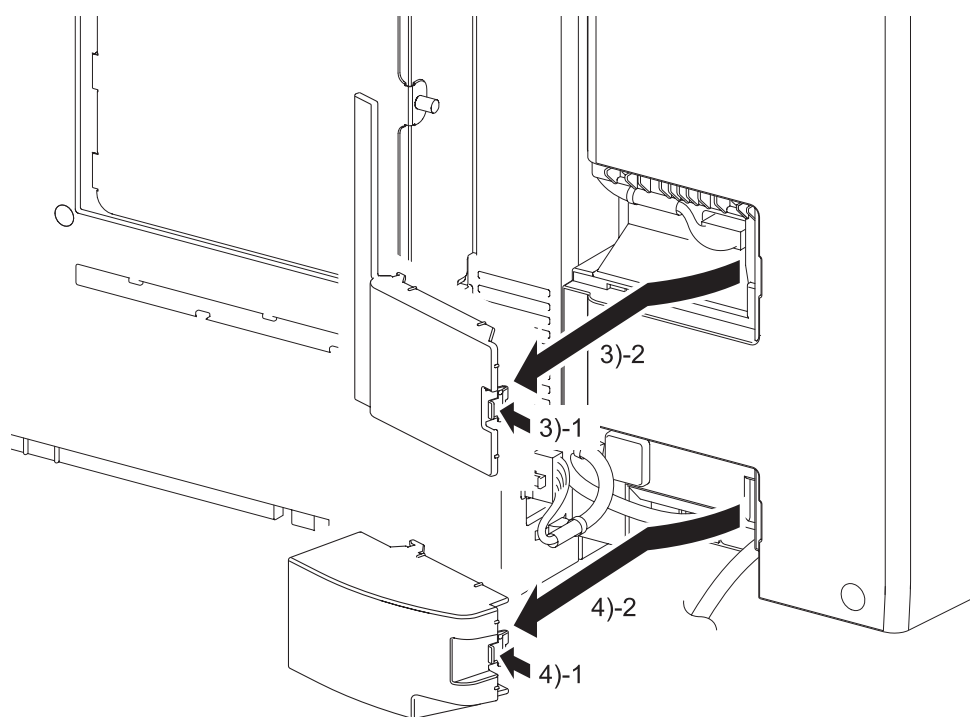


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- 2) Disengage the AC OUTLET of the CABLE ASSY POWER A4FIN (PL14.11.8) from the printer, and then release the CABLE ASSY POWER A4FIN from the harness guide on the printer.

**Continues to the next page.**

**Removal 2 KIT FINISHER ASSY (PL14.1.99)**

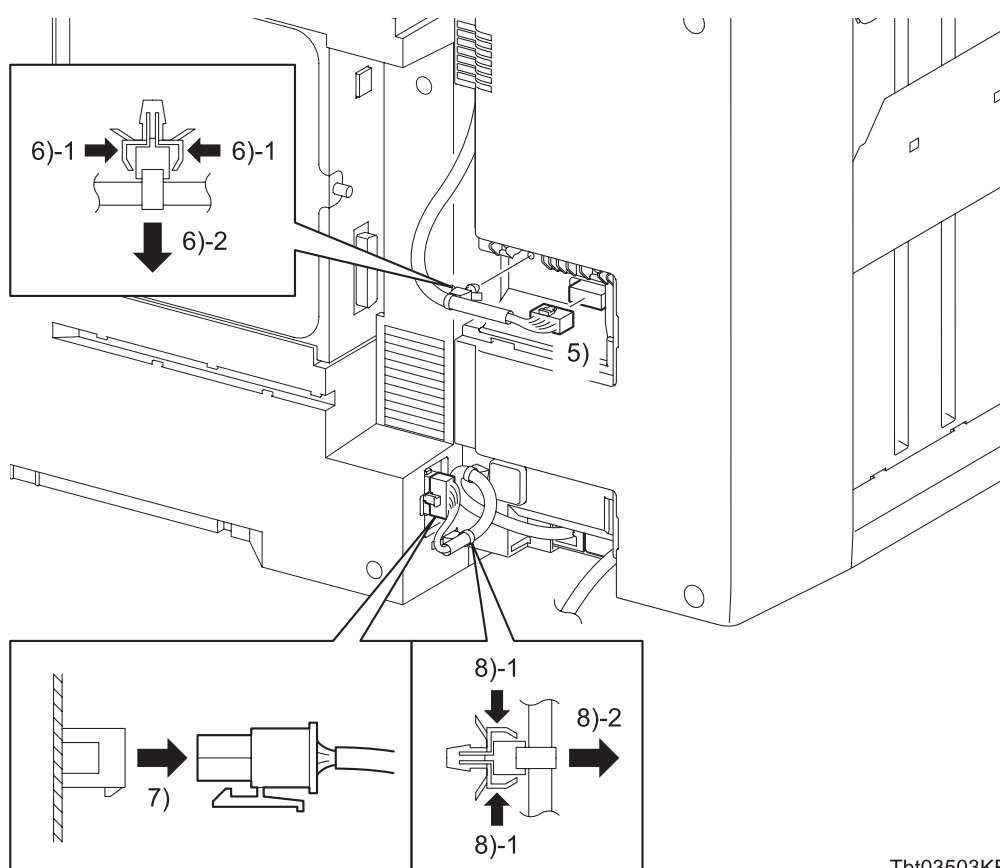


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- 3) Remove the COVER CONNECTOR (PL14.1.5) from the FINISHER ASSY by releasing the hook of the COVER CONNECTOR.
- 4) Remove the COVER CONNECTOR2 (PL14.1.4) from the FINISHER ASSY by releasing the hook of the COVER CONNECTOR2.

**Continues to the next page.**

## Removal 2 KIT FINISHER ASSY (PL14.1.99)



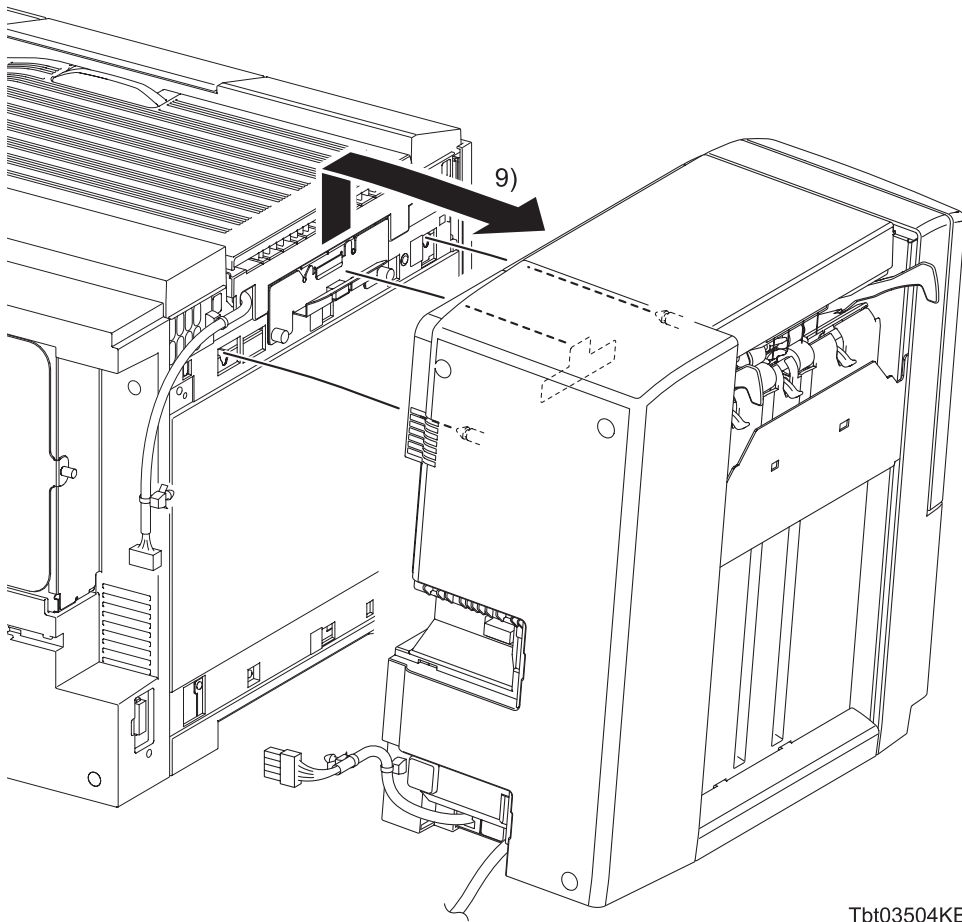
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- 5) Disengage the connectors (P/J8987) of the TRANSPORT ASSY A4 (PL14.2.1) from the FINISHER ASSY.
- 6) Remove the clamp that fixes the harness of the TRANSPORT ASSY A4 to the FINISHER ASSY.
- 7) Disengage the connectors (P121/CN4) of the HARNESS ASSY IF A4FIN (PL14.11.7) from the printer.
- 8) Remove the clamp that fixes the HARNESS ASSY IF A4FIN to the printer.

**Continues to the next page.**



**Removal 2 KIT FINISHER ASSY (PL14.1.99)**



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- 9) Remove the FINISHER from the printer by lifting it slightly with one hand on the bottom of the COVER ASSY FRONT (PL 14.3.5) and the other hand on the handle.

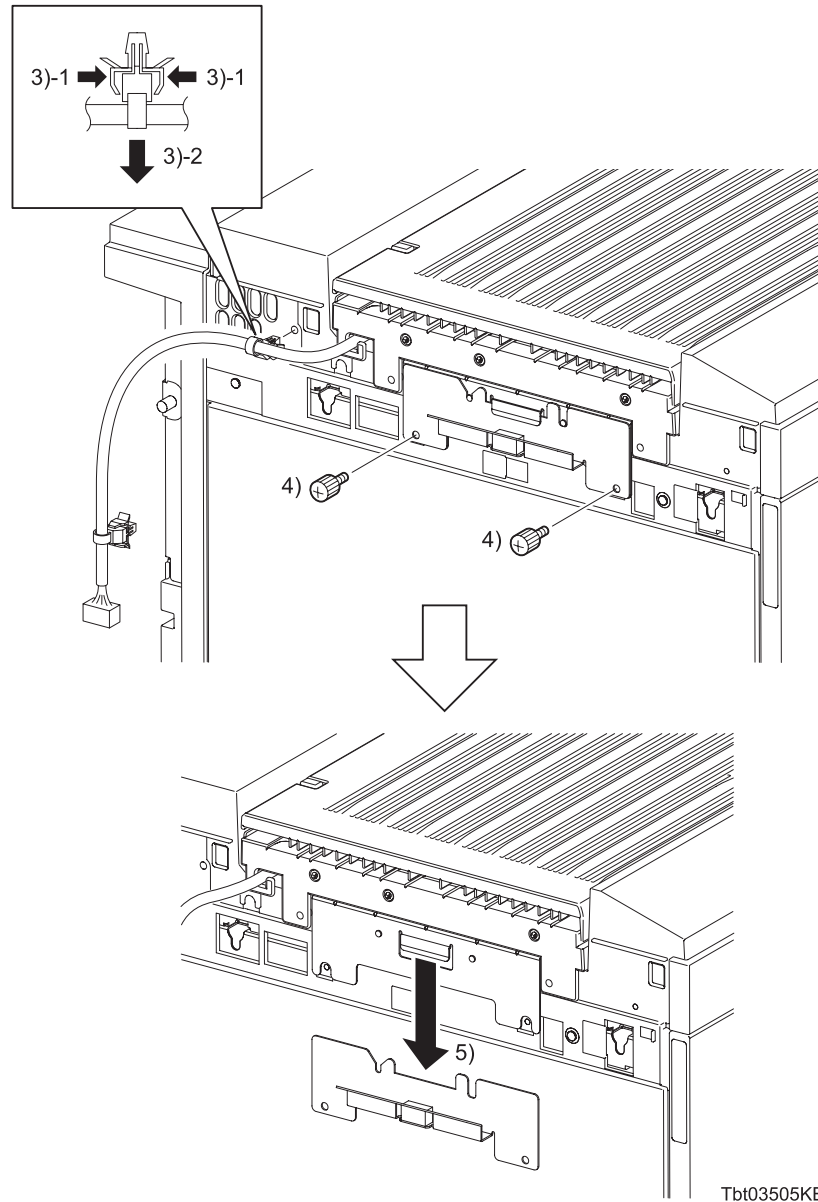
**Go to the next removal step:**

**Removal 3 TRANSPORT ASSY A4 (PL14.2.1),  
Removal 5 COVER ASSY FRONT (PL14.3.5),  
Removal 10 COVER REAR (PL14.3.3)**

## Removal 3 TRANSPORT ASSY A4 (PL14.2.1)

In the following steps, the details of Steps 1 and 2 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 3 onward.

- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)



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- 3) Remove the one clamp that fixes the harness of the TRANSPORT ASSY A4 (PL14.2.1) to the printer.

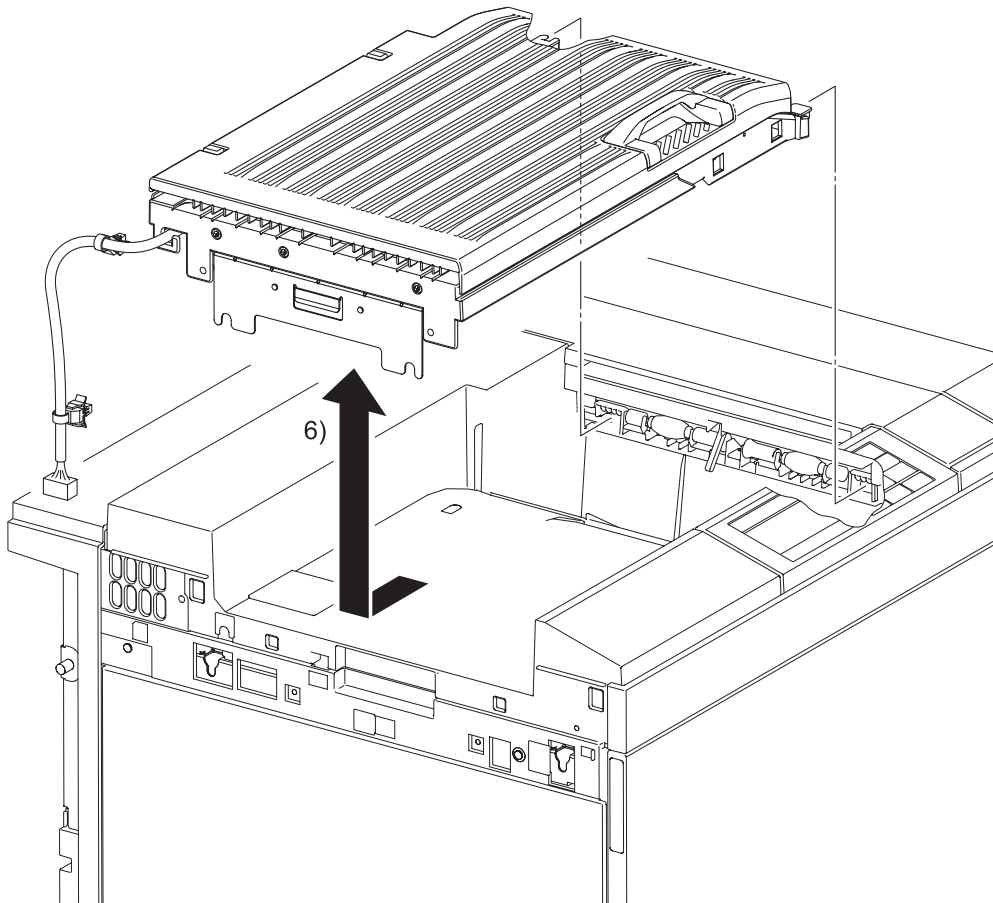
NOTE

When performing the following step, use caution not to drop the BRACKET ASSY GUIDE ADD.

- 4) Remove the two SCREW M4 STEELS (PL14.1.8) while holding the BRACKET ASSY GUIDE ADD (PL14.1.9).
- 5) Remove the BRACKET ASSY GUIDE ADD.

**Continues to the next page.**

Removal 3 TRANSPORT ASSY A4 (PL14.2.1)



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- 6) Slide the TRANSPORT ASSY A4 toward the FINISHER ASSY until the two tabs on the TRANSPORT ASSY A4 are disengaged from the printer, and then remove the TRANSPORT ASSY upward from the printer.

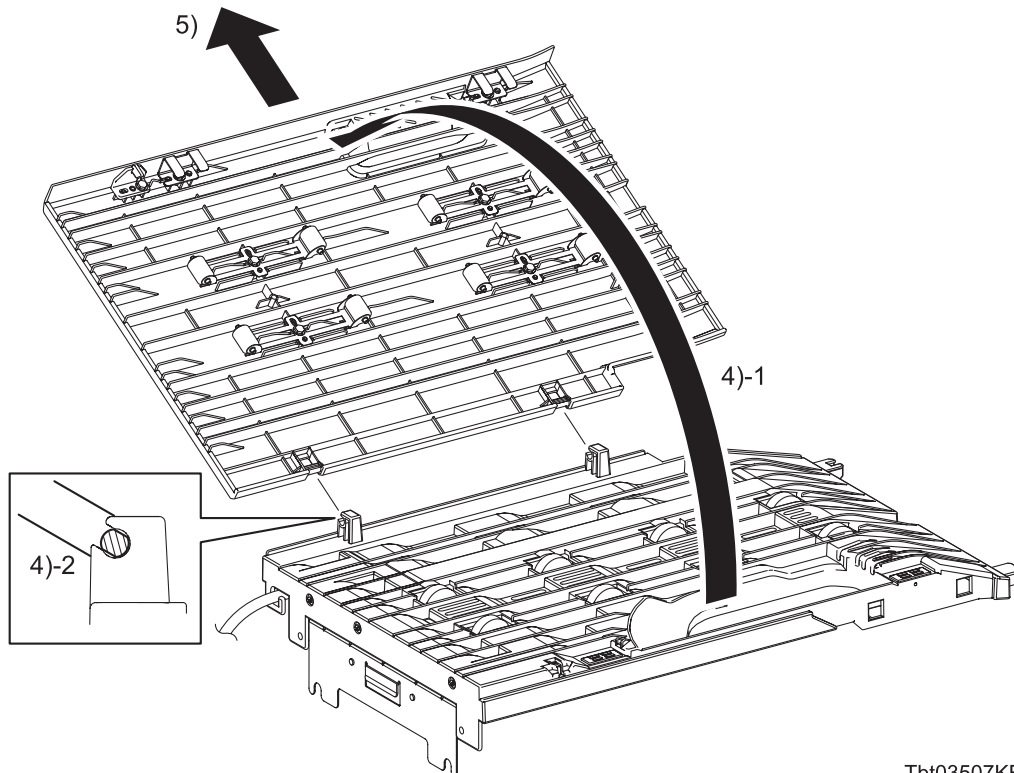
**Go to the next removal step:**

**Removal 4 KIT CHUTE ASSY LOWER H-TRA (PL14.2.98), KIT COVER ASSY TOP H-TRA (PL14.2.99)**

## Removal 4 KIT CHUTE ASSY LOWER H-TRA (PL14.2.98), KIT COVER ASSY TOP H-TRA (PL14.2.99)

In the following steps, the details of Steps 1 through 3 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 4 onward.

- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)
- 3) Remove the TRANSPORT ASSY A4. (Removal 3)



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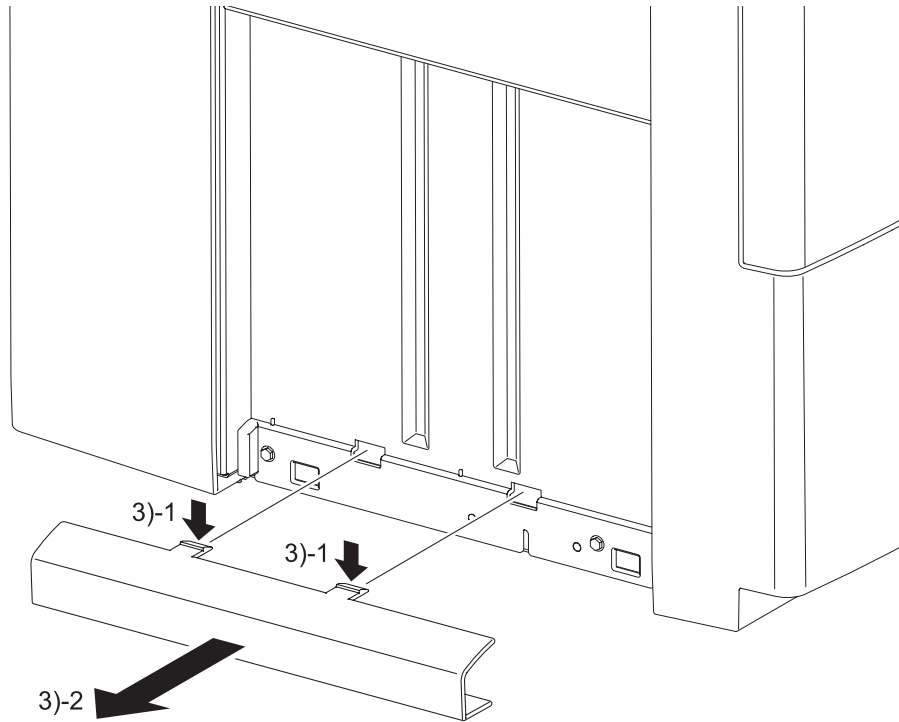
- 4) Swing up the COVER ASSY TOP H-TRA (PL14.2.3) until the flat surfaces on the pivots of the COVER ASSY TOP H-TRA becomes parallel with the U-shaped notches on the CHUTE ASSY LOWER H-TRA (PL14.2.10).
- 5) Remove the COVER ASSY TOP H-TRA diagonally upward from the CHUTE ASSY LOWER H-TRA.

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## Removal 5 COVER ASSY FRONT (PL14.3.5)

In the following steps, the details of Steps 1 and 2 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 3 onward.

- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)

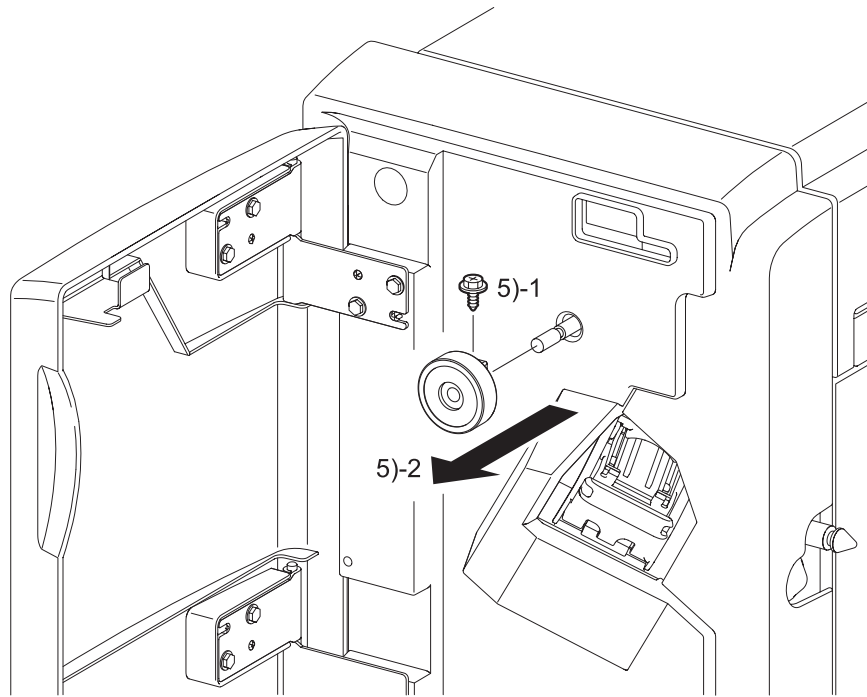


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- 3) Remove the COVER GUIDE TRAY (PL14.1.3) from FINISHER ASSY by releasing the two hooks on the COVER GUIDE TRAY.

**Continues to the next page.**

Removal 5 COVER ASSY FRONT (PL14.3.5)

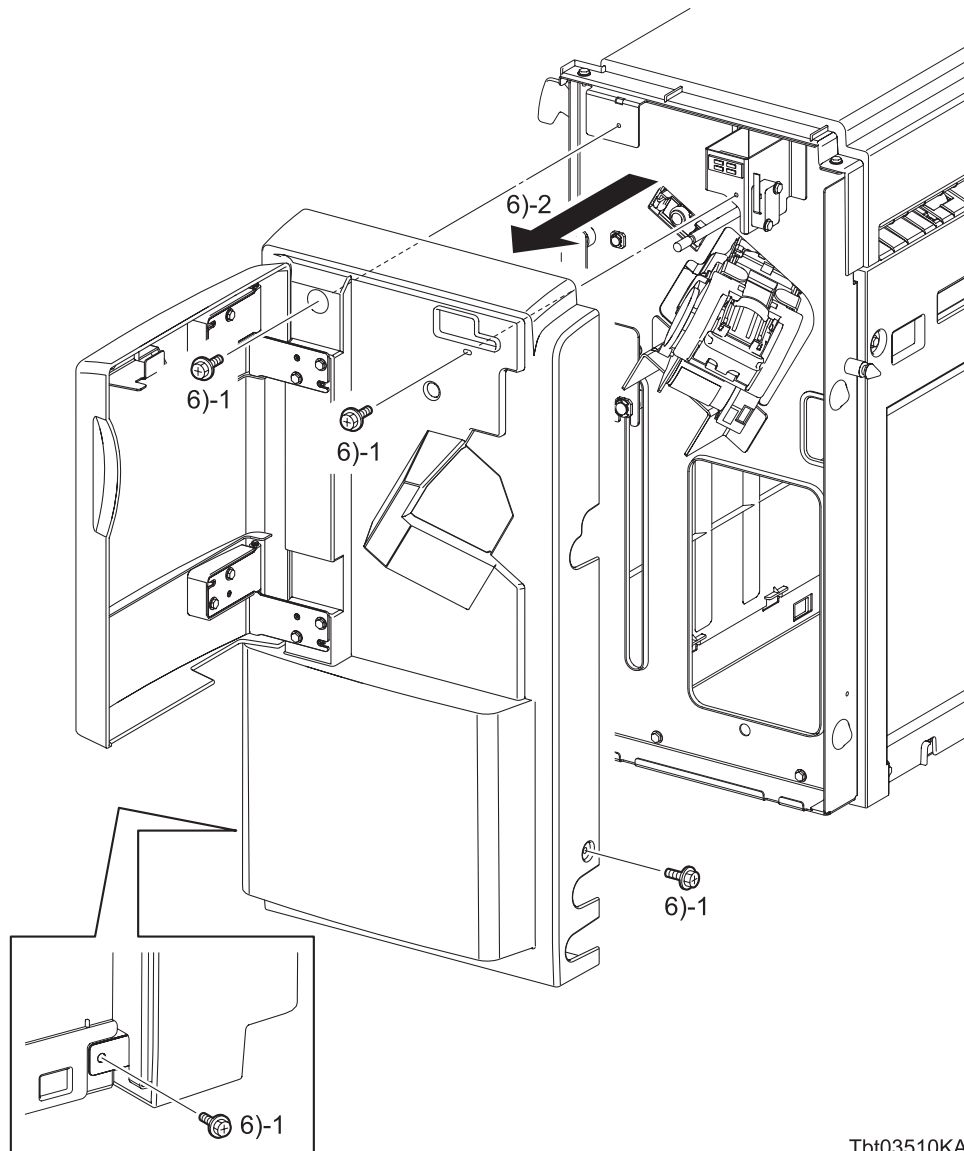


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- 4) Open the COVER ASSY FRONT DOOR (PL14.3.6).
- 5) Remove the KNOB ASSY EXIT from the ROLL ASSY DRIVE EXIT (PL14.7.12) by removing the one screw (sliver, flanged, tapping, 6mm).

**Continues to the next page.**

Removal 5 COVER ASSY FRONT (PL14.3.5)



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- 6) Remove the COVER ASSY FRONT from the FINISHER ASSY by removing the four screws (silver, flanged, 8mm).

**Go to the next removal step:**

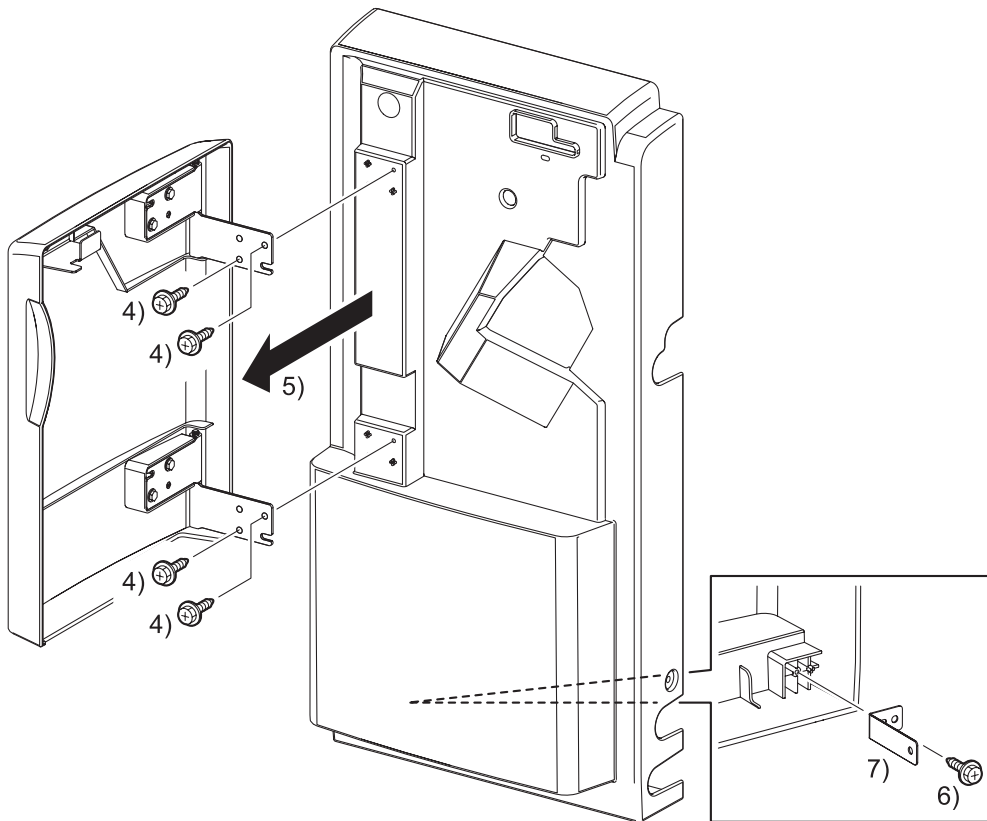
**Removal 6 COVER FRONT (PL14.3.7),  
Removal 7 HOLDER ASSY STAPLER A4 (PL14.8.19),  
Removal 8 BRACKET ASSY INTERLOCK (PL14.10.1),  
Removal 9 LVPS ASSY (PL14.10.10)**



## Removal 6 COVER FRONT (PL14.3.7)

In the following steps, the details of Steps 1 through 3 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 4 onward.

- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)
- 3) Remove the COVER ASSY FRONT. (Removal 5)



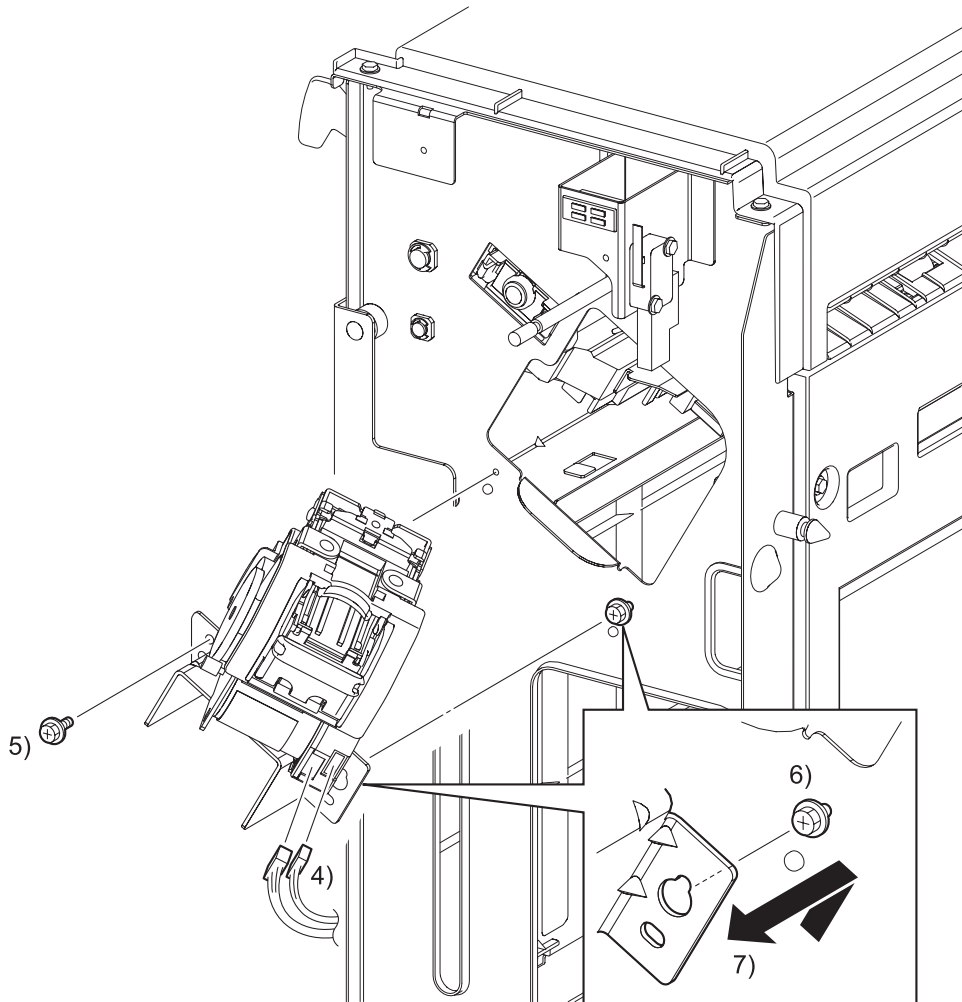
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- 4) Remove the four screws (silver, flanged, tapping, 8mm) that fix the COVER ASSY FRONT DOOR (PL14.3.6) to the COVER FRONT (PL14.3.7).
- 5) Remove the COVER ASSY FRONT DOOR from the COVER FRONT.
- 6) Remove the one screw (silver, flanged, tapping, 8mm) that fixes the BRACKET COVER FRONT (PL14.3.8) to the COVER FRONT.
- 7) Remove the BRACKET COVER FRONT from the COVER FRONT.

## Removal 7 HOLDER ASSY STAPLER A4 (PL14.8.19)

In the following steps, the details of Steps 1 through 3 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 4 onward.

- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)
- 3) Remove the COVER ASSY FRONT. (Removal 5)



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- 4) Disengage the two sets of connectors (P/J8886, 8887) of the HOLDER ASSY STAPLER A4 (PL14.8.19).

## NOTE

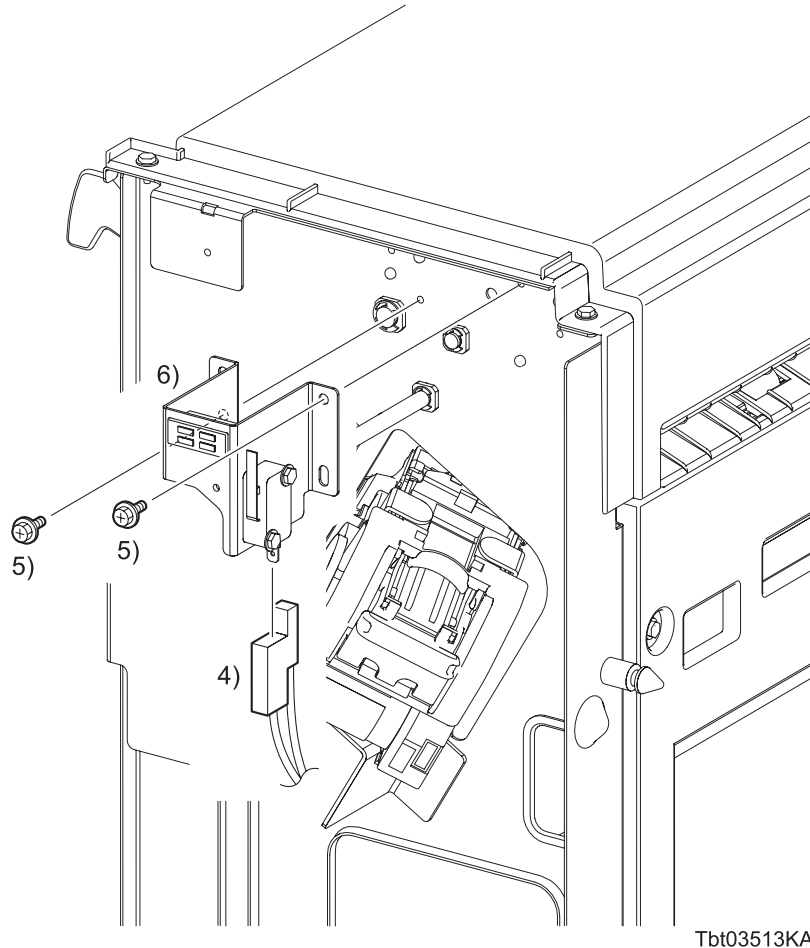
When performing the following step, use caution not to drop the HOLDER ASSY STAPLER A4.

- 5) Remove the one screw (silver, flanged, 6mm) that fixes the HOLDER ASSY STAPLER A4 to the FINISHER ASSY.
- 6) Loosen the one screw (silver, flanged, 6mm) that fixes the HOLDER ASSY STAPLER A4 to the FINISHER ASSY.
- 7) Release the notch of the HOLDER ASSY STAPLER A4 from the loosened screws by slightly lifting the HOLDER ASSY STAPLER A4. Then, remove the HOLDER ASSY STAPLER A4 from the FINISHER ASSY.

## Removal 8 BRACKET ASSY INTERLOCK (PL14.10.1)

In the following steps, the details of Steps 1 through 3 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 4 onward.

- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)
- 3) Remove the COVER ASSY FRONT. (Removal 5)



- 4) Disengage the connectors (P/J8889) of the SWITCH (PL14.10.13).
- 5) Remove the two screws (silver, flanged, 6mm) that fix the BRACKET ASSY INTERLOCK (PL14.10.1) to the FINISHER ASSY.
- 6) Remove the BRACKET ASSY INTERLOCK from the FINISHER ASSY.

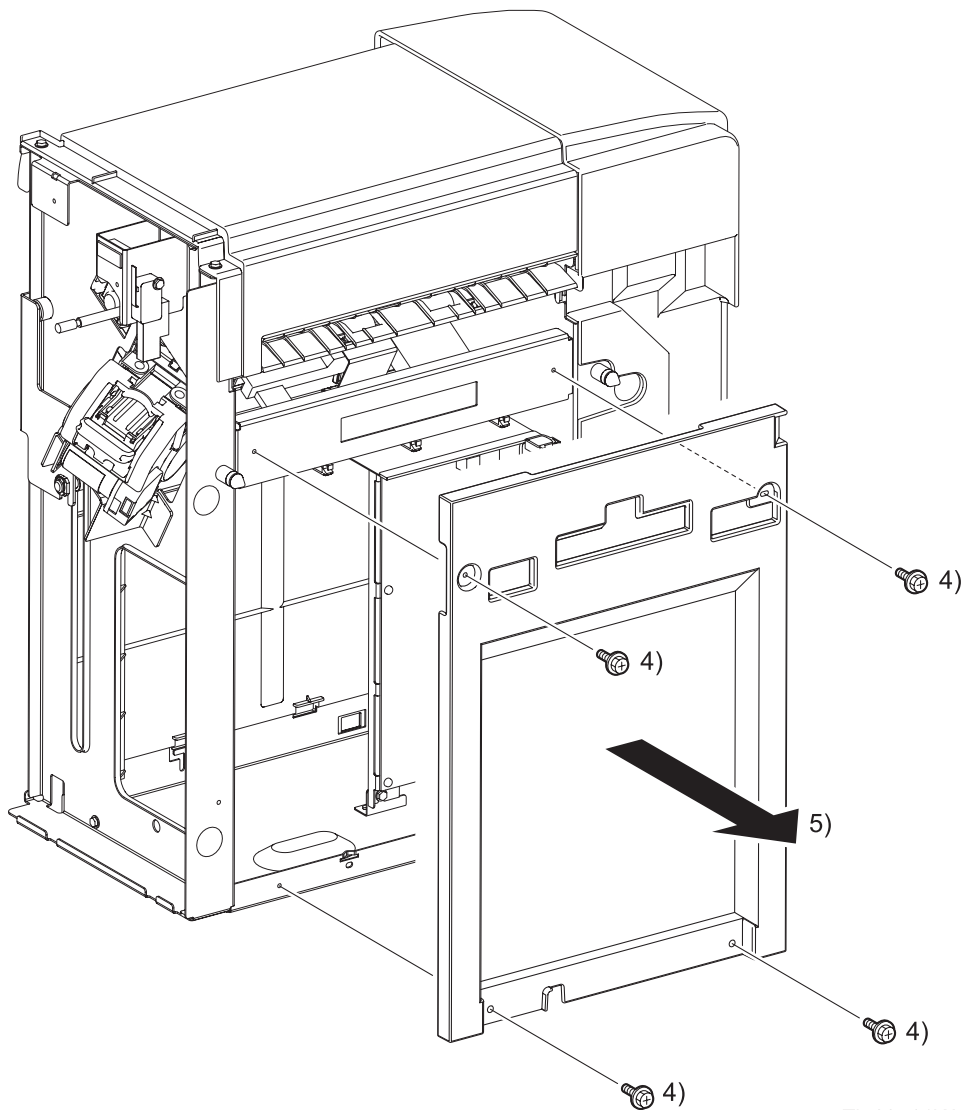
## Removal 9 LVPS ASSY (PL14.10.10)

NOTE

Use a wrist strap to protect the PWB from electrostatic damage.

In the following steps, the details of Steps 1 through 3 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 4 onward.

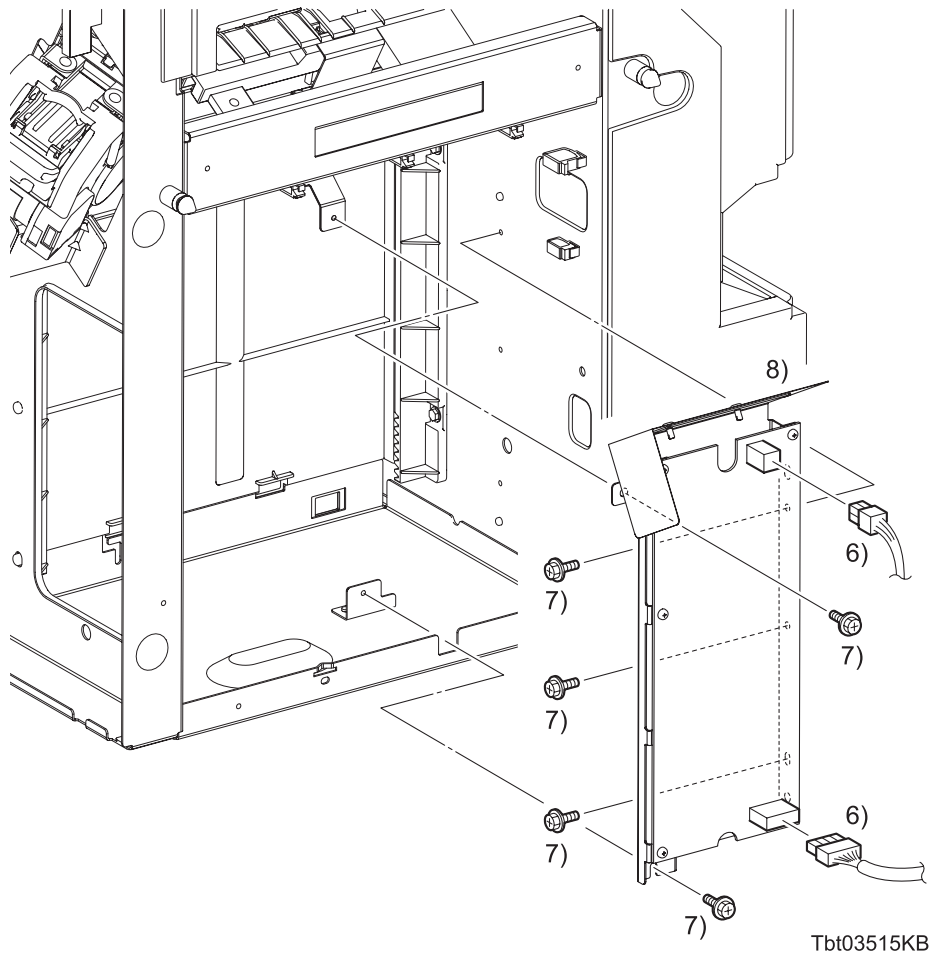
- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)
- 3) Remove the COVER ASSY FRONT. (Removal 5)



- 4) Remove the four screws (silver, flanged, 8mm) that fix the COVER RH (PL14.3.4) to the FINISHER ASSY.
- 5) Remove the COVER RH from the FINISHER ASSY.

**Continues to the next page.**

## Removal 9 LVPS ASSY (PL14.10.10)

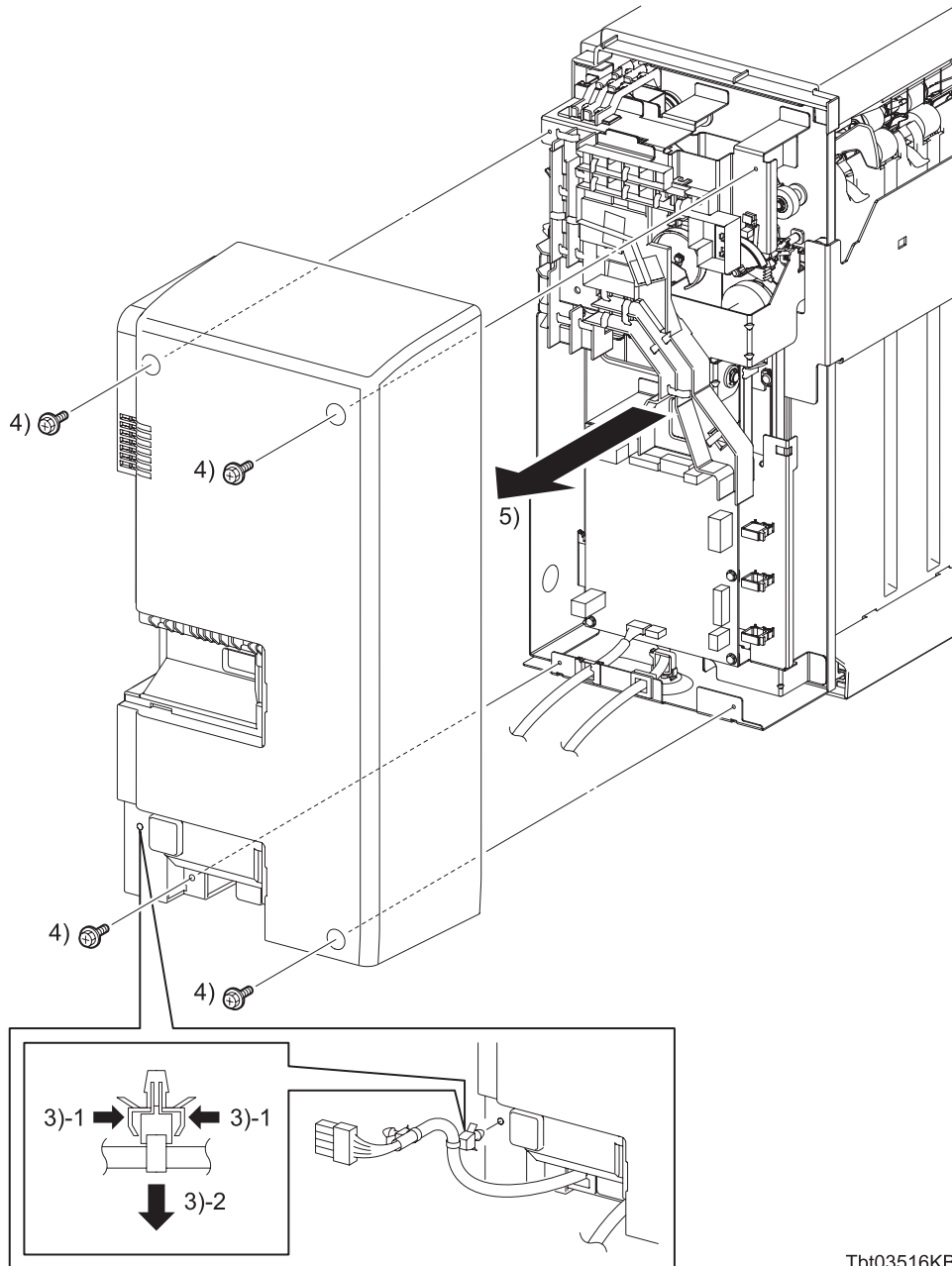


- 6) Disengage the two sets of connectors (P/J590, 591) of the LVPS ASSY (PL14.10.10).
- 7) Remove the five screws (silver, flanged, 6mm) that fix the LVPS ASSY to the FINISHER ASSY.
- 8) Remove the LVPS ASSY from the FINISHER ASSY.

**Removal 10 COVER REAR (PL14.3.3)**

In the following steps, the details of Steps 1 and 2 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 3 onward.

- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)



Tbt03516KB

- 3) Remove the clamp that fixes the HARNESS ASSY IF A4FIN (PL14.11.7) to the COVER REAR (PL14.3.3).
- 4) Remove the four screws (silver, flanged, 8mm) that fix the COVER REAR (PL14.3.3) to the FINISHER ASSY.
- 5) Remove the COVER REAR from the FINISHER ASSY.

**Go to the next removal step:**

**Removal 11 PWBA MAIN A4FIN (PL14.4.12)**

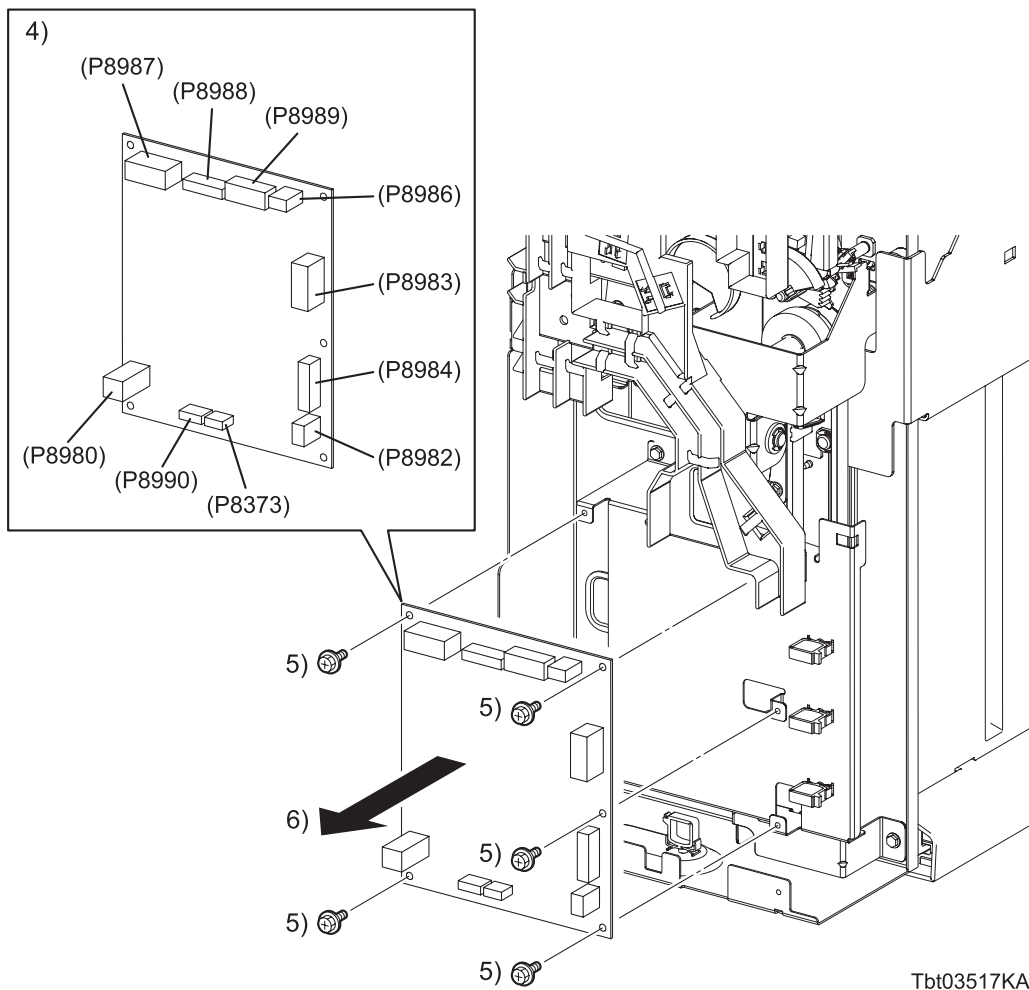
## Removal 11 PWBA MAIN A4FIN (PL14.4.12)

NOTE

Use a wrist strap to protect the PWB from electrostatic damage.

In the following steps, the details of Steps 1 through 3 are omitted because they are described earlier in this chapter. Go to the steps in parentheses to execute the necessary steps, and then go to Step 4 onward.

- 1) Remove the TRAY STACKER. (Removal 1)
- 2) Remove the FINISHER ASSY. (Removal 2)
- 3) Remove the COVER REAR. (Removal 10)

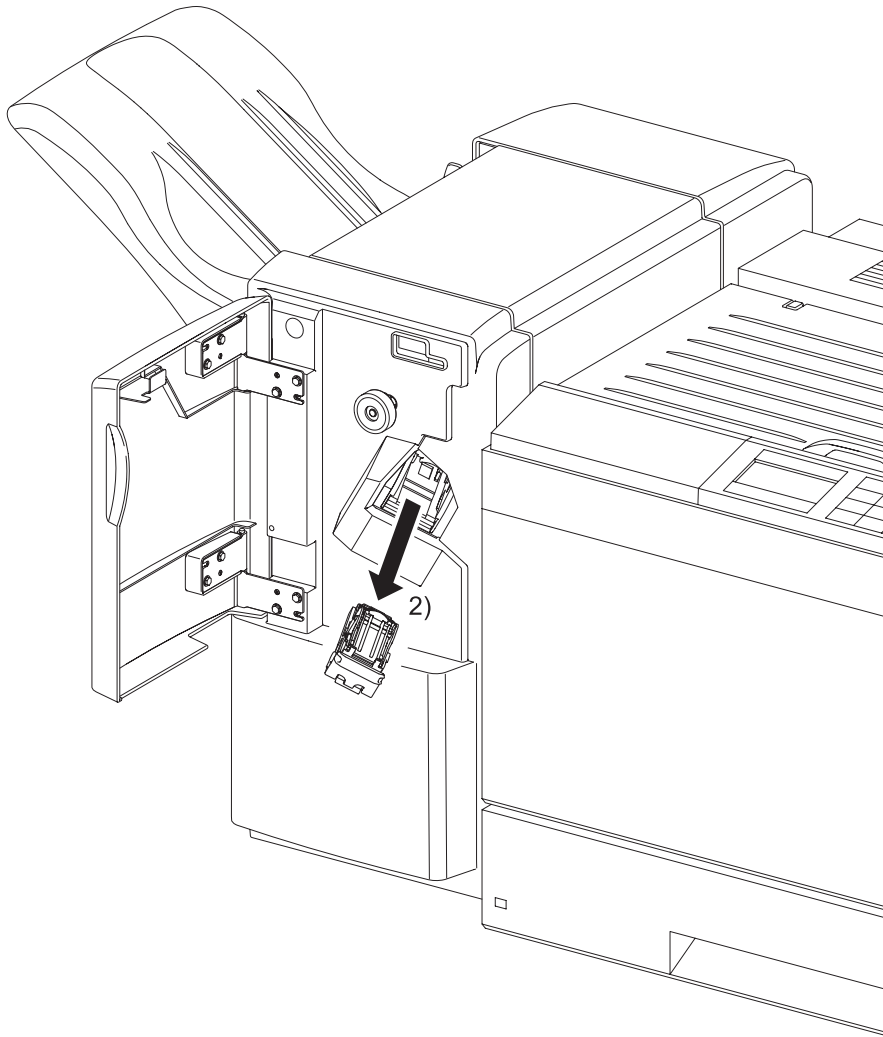


Tbt03517KA

- 4) Disengage all the connectors of the PWBA MAIN A4FIN (PL14.4.12).
- 5) Remove the five screws (silver, flanged, 6mm) that fix the PWBA MAIN A4FIN to the FINISHER ASSY.
- 6) Remove the PWBA MAIN A4FIN from the FINISHER ASSY.

## Removal 12 HOLDER CARTRIDGE (PL14.8.21)

- 1) Open the COVER ASSY FRONT DOOR (PL14.3.6).



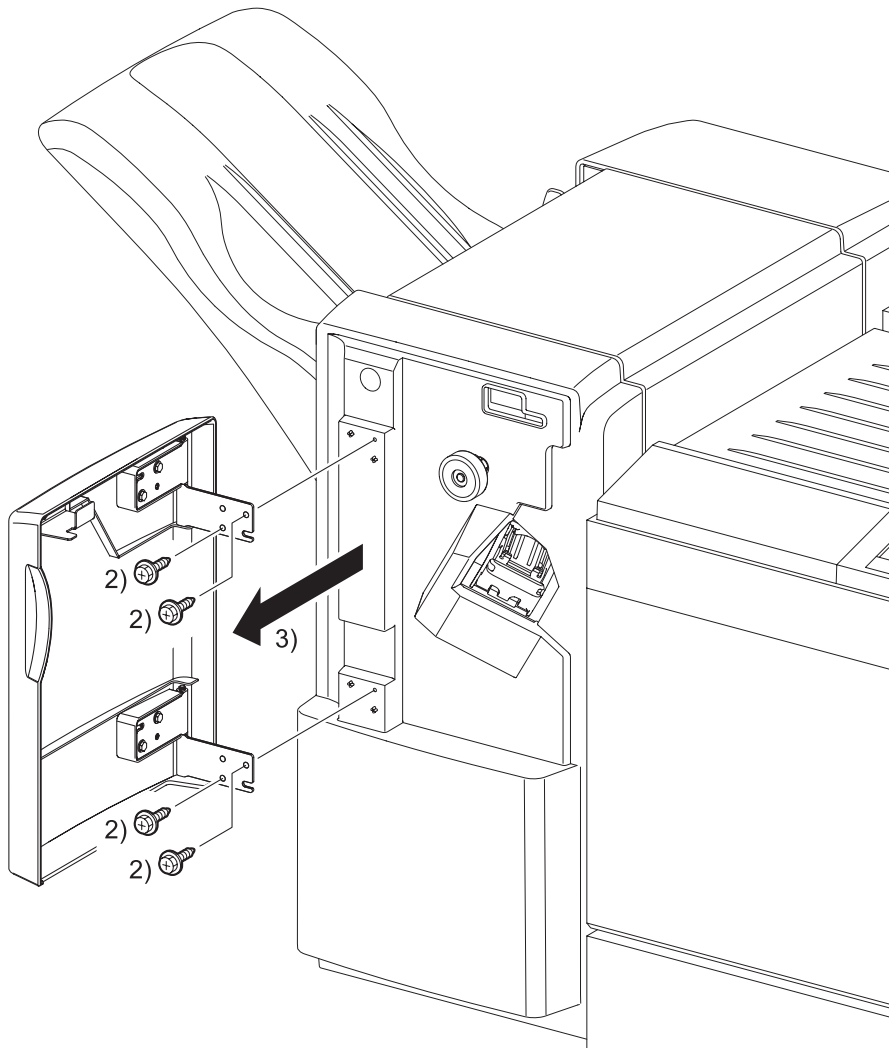
Tbt03518KA

- 2) Pull out the HOLDER CARTRIDGE (PL14.8.21) from the FINISHER ASSY.



### Removal 13 COVER ASSY FRONT DOOR (PL14.3.6)

- 1) Open the COVER ASSY FRONT DOOR (PL14.3.6).



Tbt03538KA

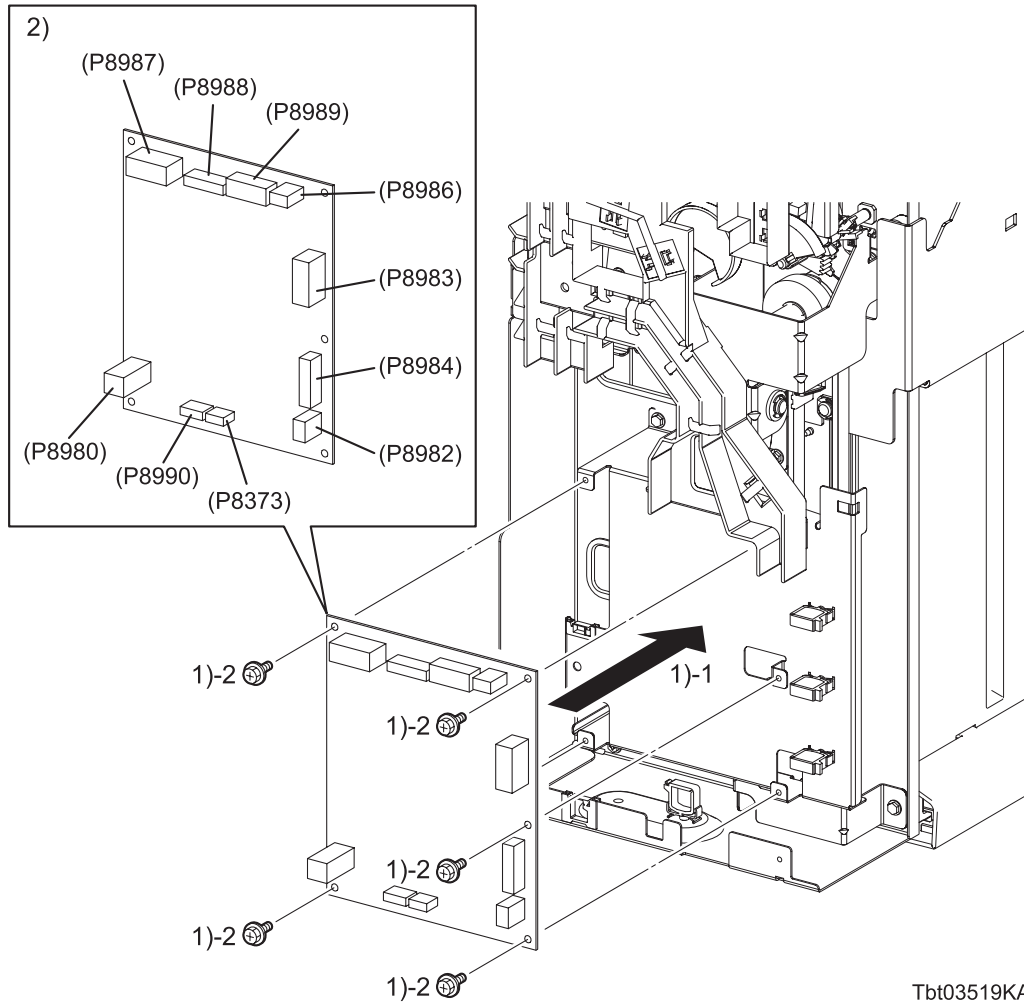
- 2) Remove the four screws (silver, flanged, tapping, 8mm) that fix the COVER ASSY FRONT DOOR to the FINISHER ASSY.
- 3) Remove the COVER ASSY FRONT DOOR from the FINISHER ASSY.

## 4. Replacement Steps

### Replacement 1 PWBA MAIN A4FIN (PL14.4.12)

NOTE

Use a wrist strap to protect the PWB from electrostatic damage.



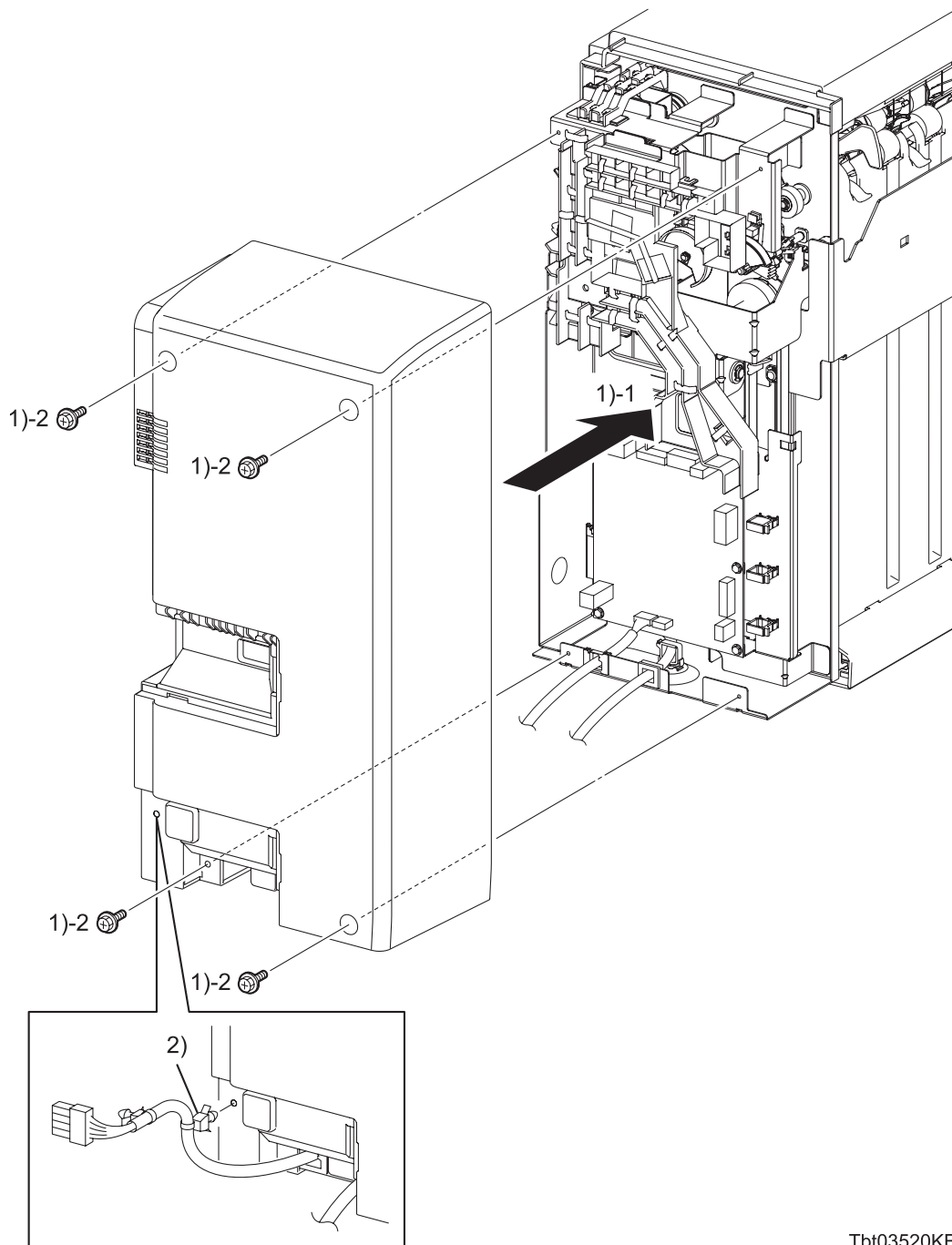
Tbt03519KA

- 1) Replace the PWBA MAIN A4FIN to the FINISHER ASSY, and then secure with the five screws (silver, flanged, 6mm).
- 2) Engage all the connectors of the PWBA MAIN A4FIN.

**Go to the next replacement step:**

### Replacement 2 COVER REAR (PL14.3.3)

## Replacement 2 COVER REAR (PL14.3.3)



Tbt03520KB

- 1) Replace the COVER REAR to the FINISHER ASSY, and then secure with the four screws (silver, flanged, 8mm).
- 2) Secure the HARNESS ASSY IF A4FIN to the COVER REAR with the clamp.

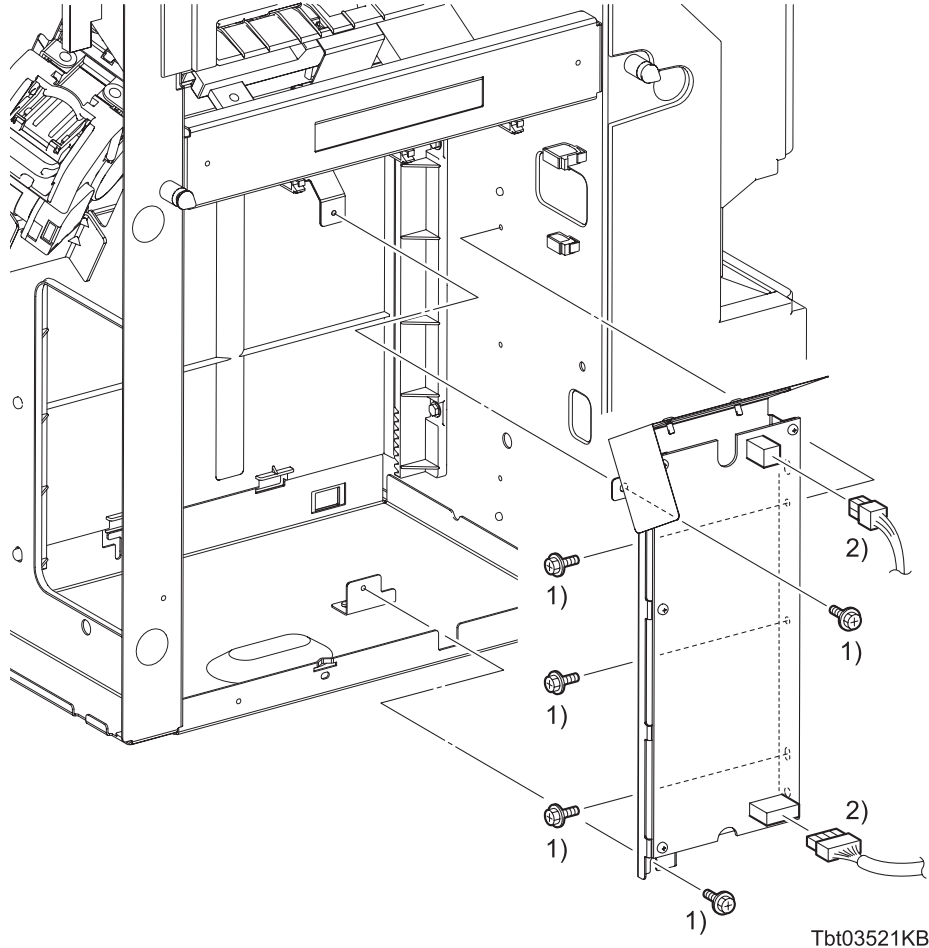
**Go to the next replacement step:**

**Replacement 10 KIT FINISHER ASSY (PL14.1.99)**

### Replacement 3 LVPS ASSY (PL14.10.10)

NOTE

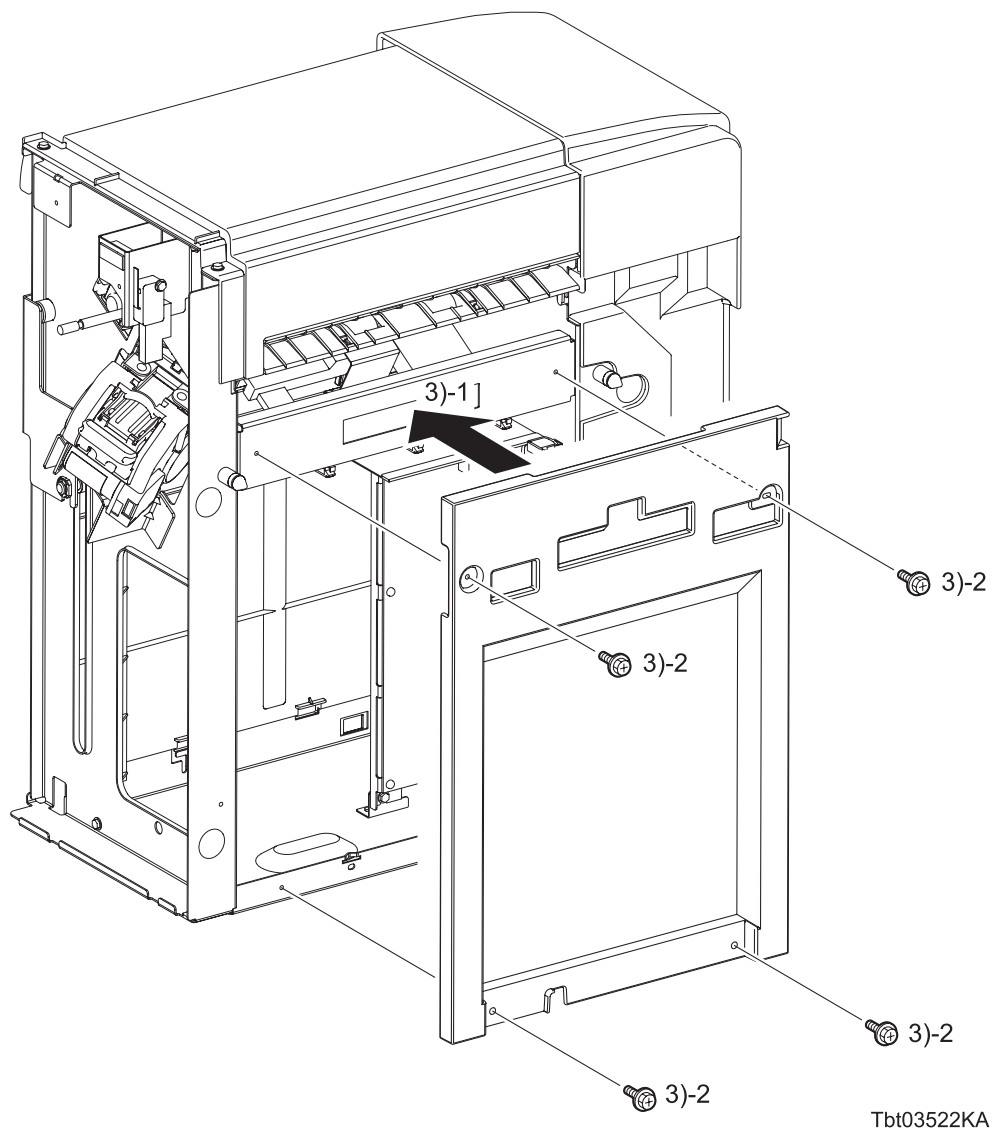
Use a wrist strap to protect the PWB from electrostatic damage.



- 1) Replace the LVPS ASSY to the FINISHER ASSY, and then secure with the five screws (silver, flanged, 6mm).
- 2) Engage the two sets of connectors (P/J590, 591) of the LVPS ASSY.

**Continues to the next page.**

Replacement 3 LVPS ASSY (PL14.10.10)

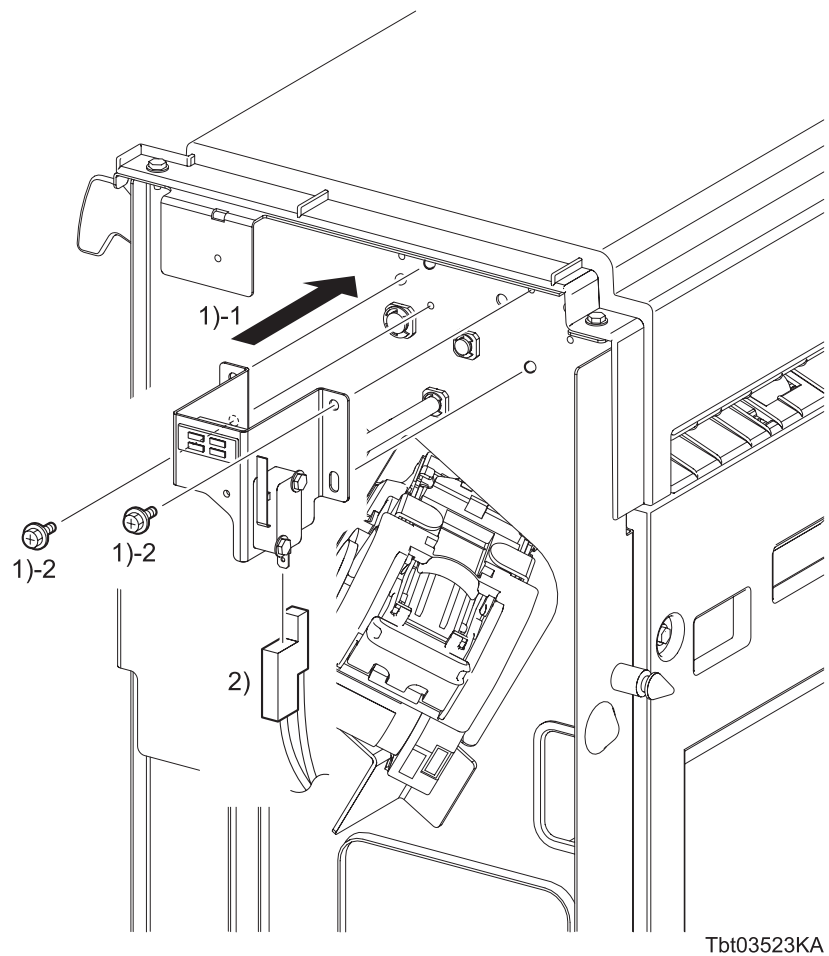


- 3) Replace the COVER RH to the FINISHER ASSY, and then secure with the four screws (silver, flanged, 8mm).

**Go to the next replacement step:**

**Replacement 7 COVER ASSY FRONT (PL14.3.5)**

Replacement 4 BRACKET ASSY INTERLOCK (PL14.10.1)

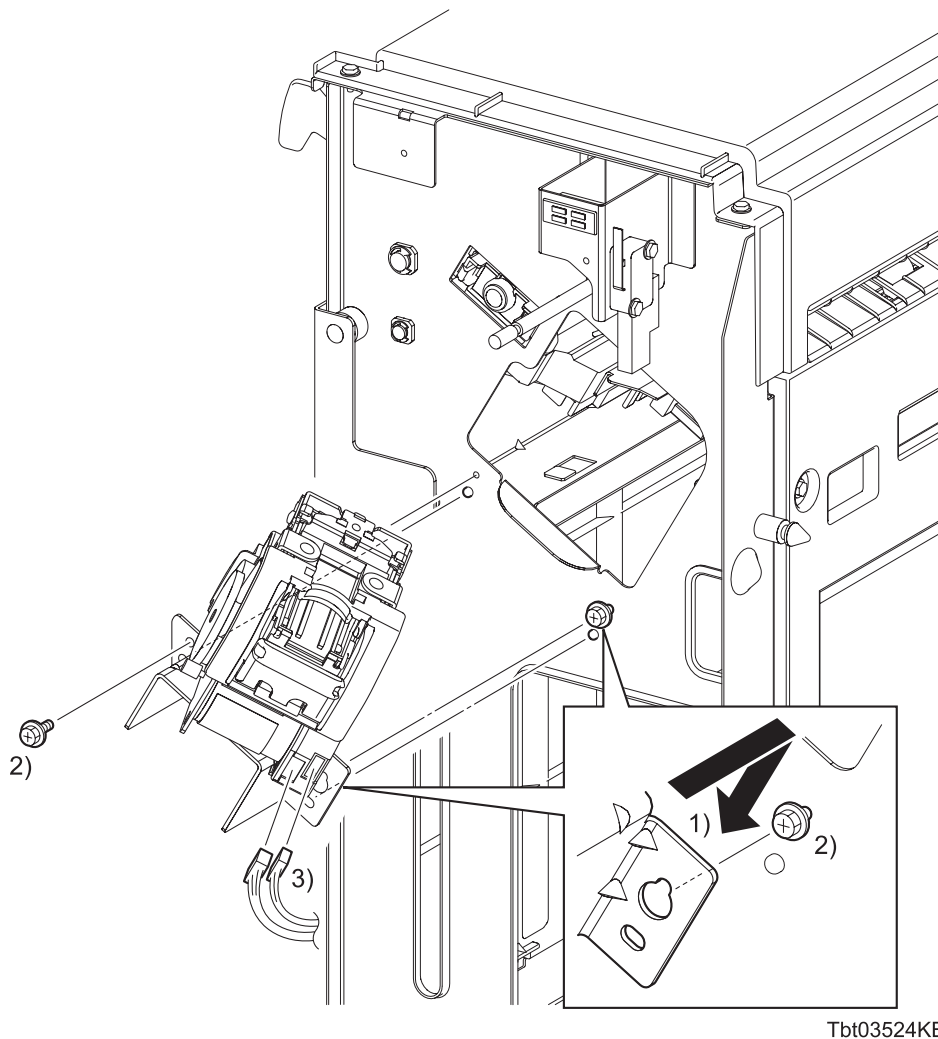


- 1) Mate the two holes of the BRACKET ASSY INTERLOCK with the bosses of the FINISHER ASSY, and then secure with the two screws (silver, flanged, 6mm).
- 2) Engage the connectors (P/J8889) of the SWITCH.

**Go to the next replacement step:**

**Replacement 7 COVER ASSY FRONT (PL14.3.5)**

## Replacement 5 HOLDER ASSY STAPLER A4 (PL14.8.19)

**NOTE**

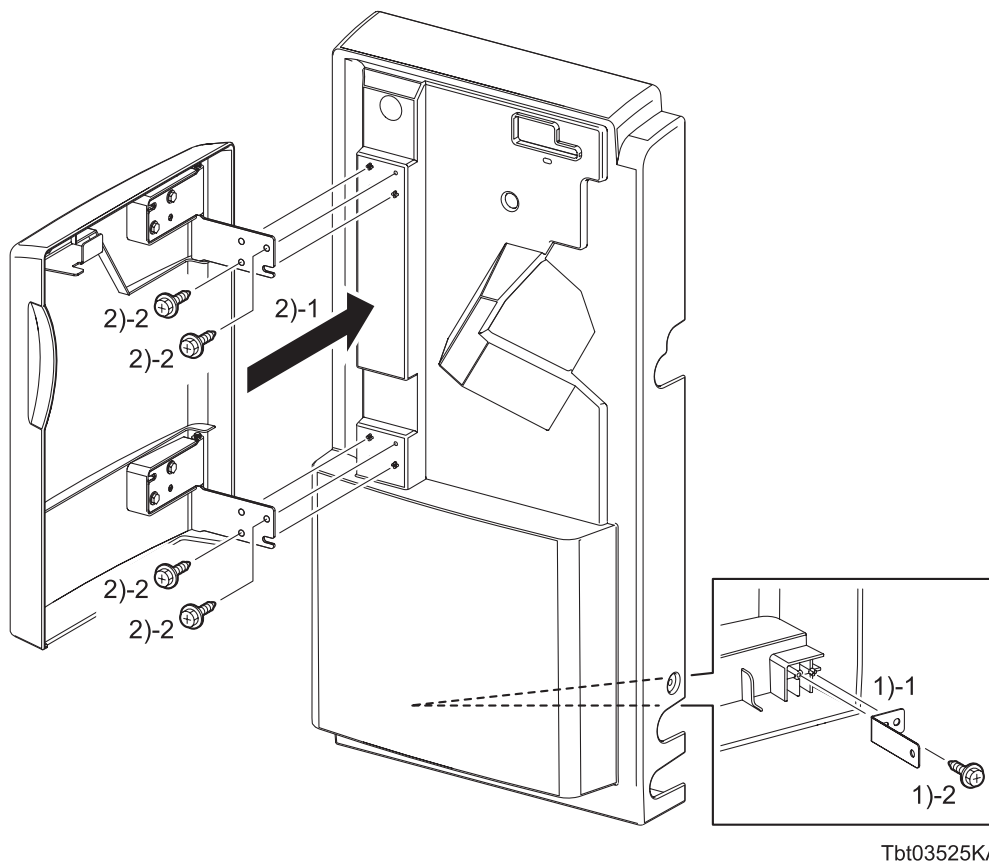
When performing the following steps, use caution not to drop the HOLDER ASSY STAPLER A4.

- 1) Fit the notch of the HOLDER ASSY STAPLER A4 with the loosened screws, and then mate the two holes of the HOLDER ASSY STAPLER A4 with the bosses of the FINISHER ASSY.
- 2) Secure the HOLDER ASSY STAPLER A4 to the FINISHER ASSY with the two screws (silver, flanged, 6mm).
- 3) Engage the two sets of connectors (P/J8886, 8887) of the HOLDER ASSY STAPLER A4.

**Go to the next replacement step:**

**Replacement 7 COVER ASSY FRONT (PL14.3.5)**

## Replacement 6 COVER FRONT (PL14.3.7)



- 1) Mate the hole of the BRACKET COVER FRONT with the boss of the COVER FRONT, and then secure with the one screw (silver, flanged, tapping, 8mm).
- 2) Mate the four holes of the COVER ASSY FRONT DOOR with the bosses of the COVER FRONT, and then secure with the four screws (silver, flanged, tapping, 8mm).

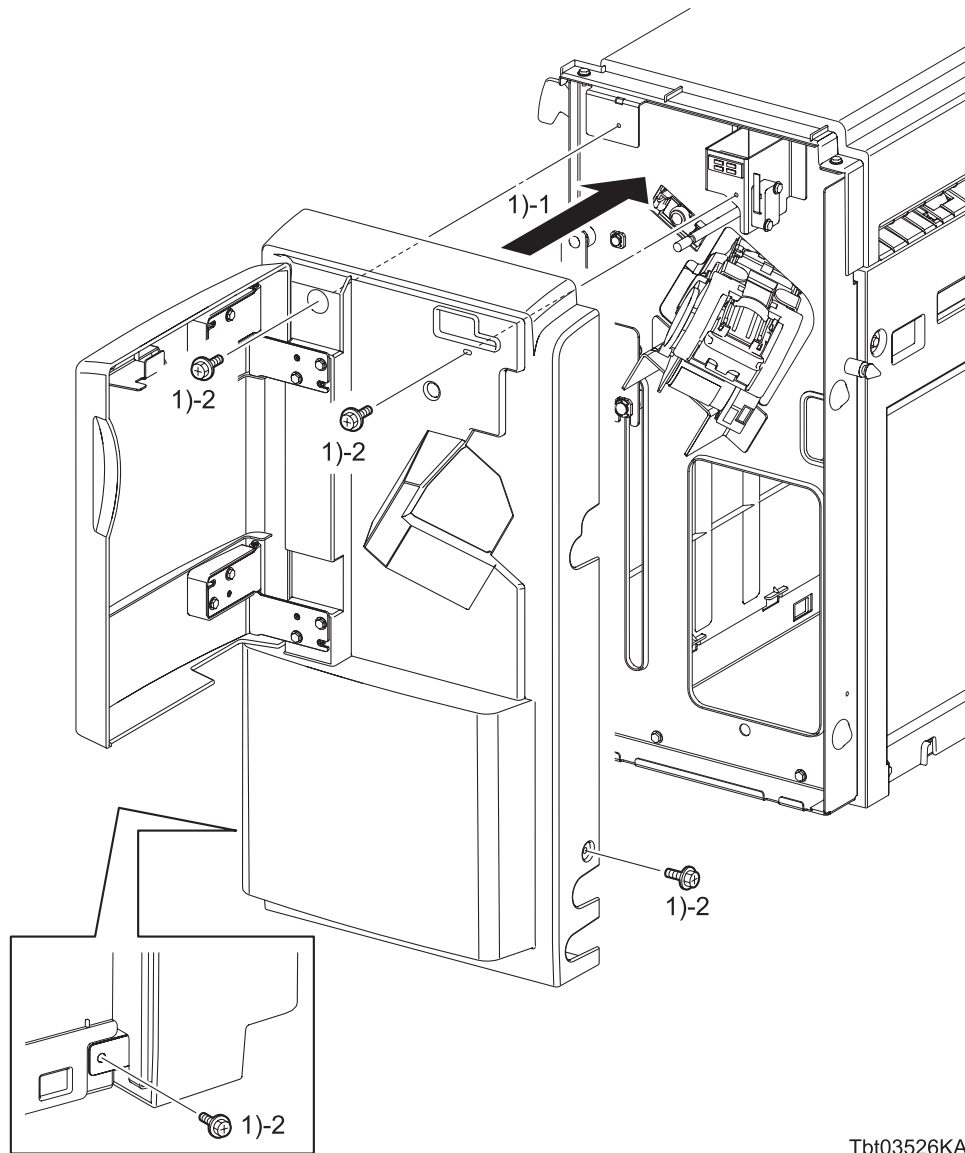
**Go to the next replacement step:**

## Replacement 7 COVER ASSY FRONT (PL14.3.5)



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Replacement 7 COVER ASSY FRONT (PL14.3.5)

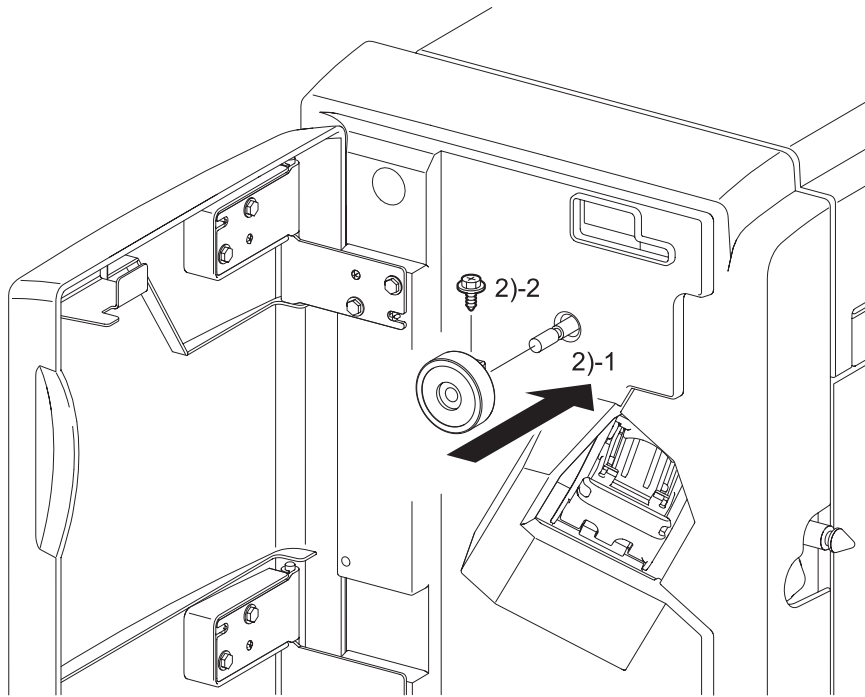


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- 1) Replace the COVER ASSY FRONT to the FINISHER ASSY, and then secure with the four screws (silver, flanged, 8mm).

**Continues to the next page.**

Replacement 7 COVER ASSY FRONT (PL14.3.5)

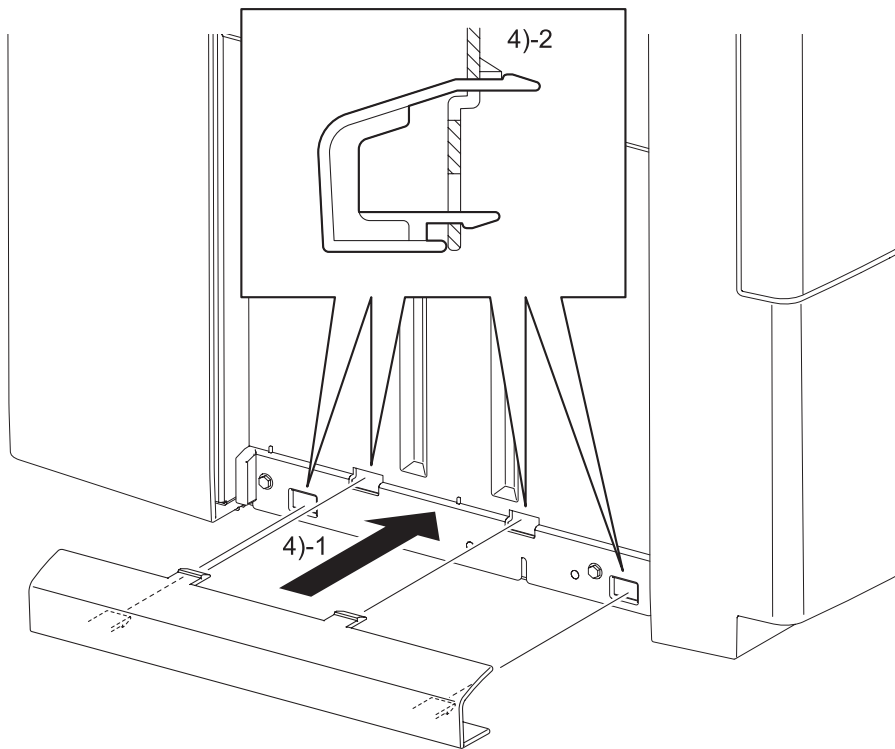


Tbt03527KA

- 2) Replace the KNOB ASSY EXIT to the ROLL ASSY DRIVE EXIT, and then secure with the one screw (sliver, flanged, tapping, 6mm).
- 3) Close the COVER ASSY FRONT DOOR.

**Continues to the next page.**

Replacement 7 COVER ASSY FRONT (PL14.3.5)



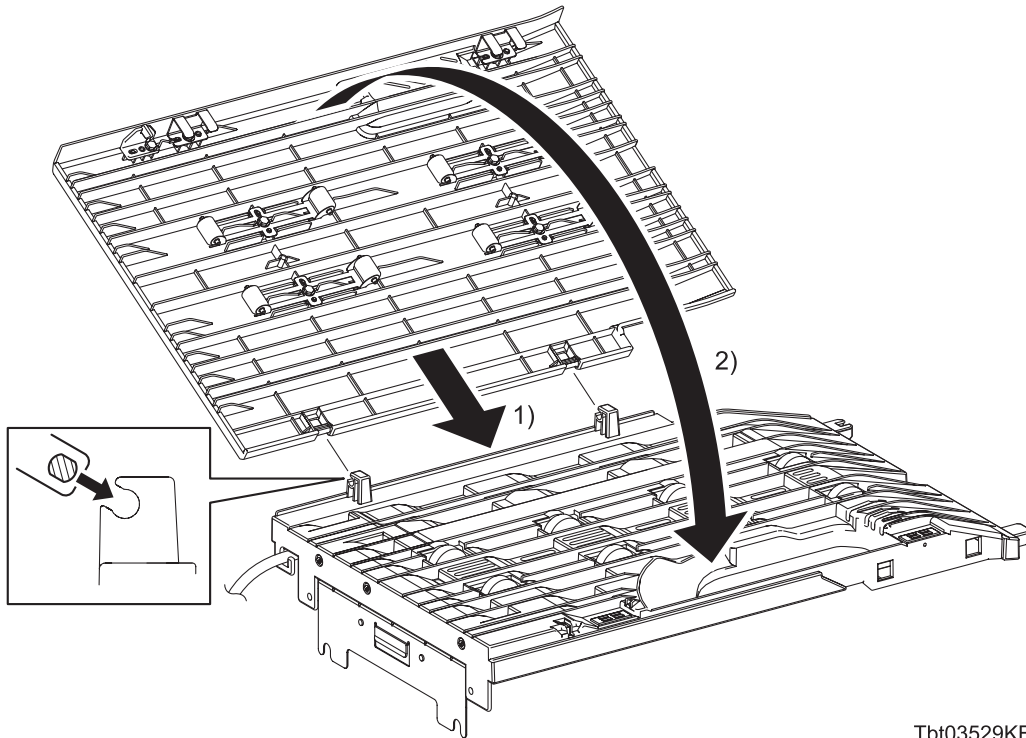
Tbt03528KB

- 4) Replace the COVER GUIDE TRAY to the FINISHER ASSY, and then secure with the two hooks.

**Go to the next replacement step:**

**Replacement 10 KIT FINISHER ASSY (PL14.1.99)**

Replacement 8 KIT CHUTE ASSY LOWER H-TRA (PL14.2.98), KIT COVER ASSY  
TOP H-TRA (PL14.2.99)



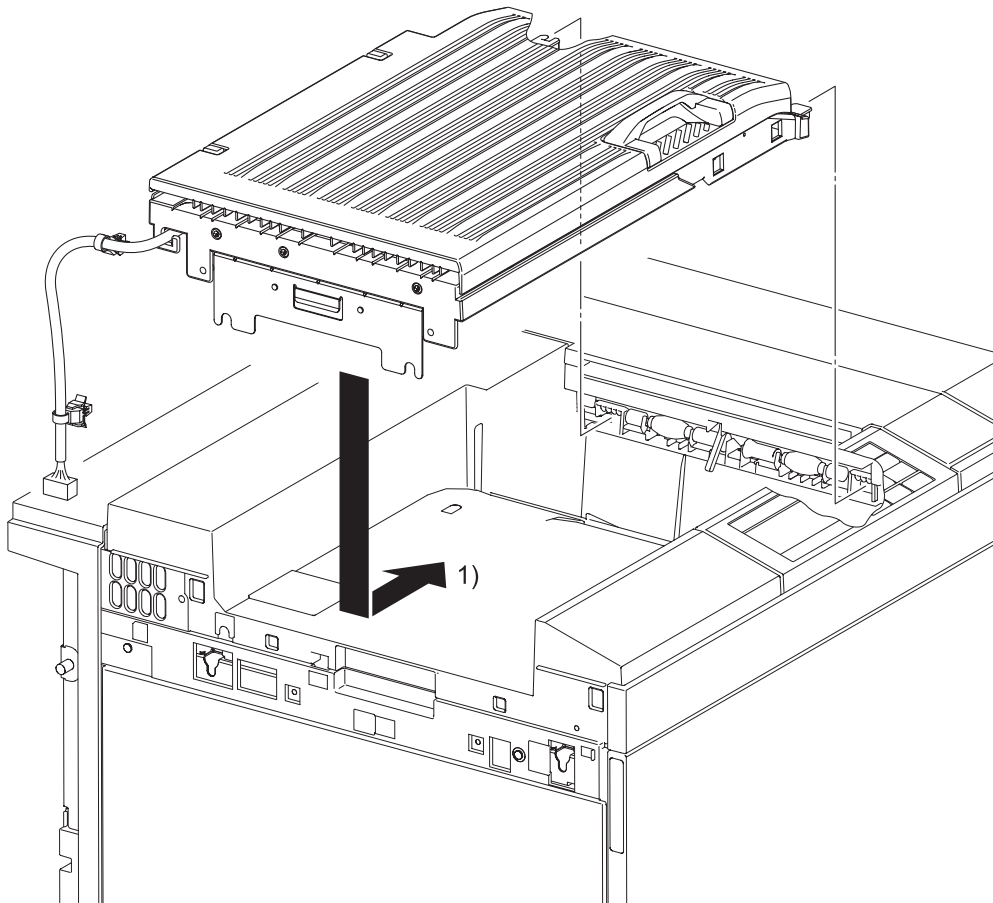
Tbt03529KB

- 1) Mate the pivots of the COVER ASSY TOP H-TRA into the U-shaped notches on the CHUTE ASSY LOWER H-TRA so that the flat surfaces of the pivots become parallel with the notches.
- 2) Swing down the COVER ASSY TOP H-TRA.

**Go to the next replacement step:**

**Replacement 9 TRANSPORT ASSY A4 (PL14.2.1)**

Replacement 9    TRANSPORT ASSY A4 (PL14.2.1)

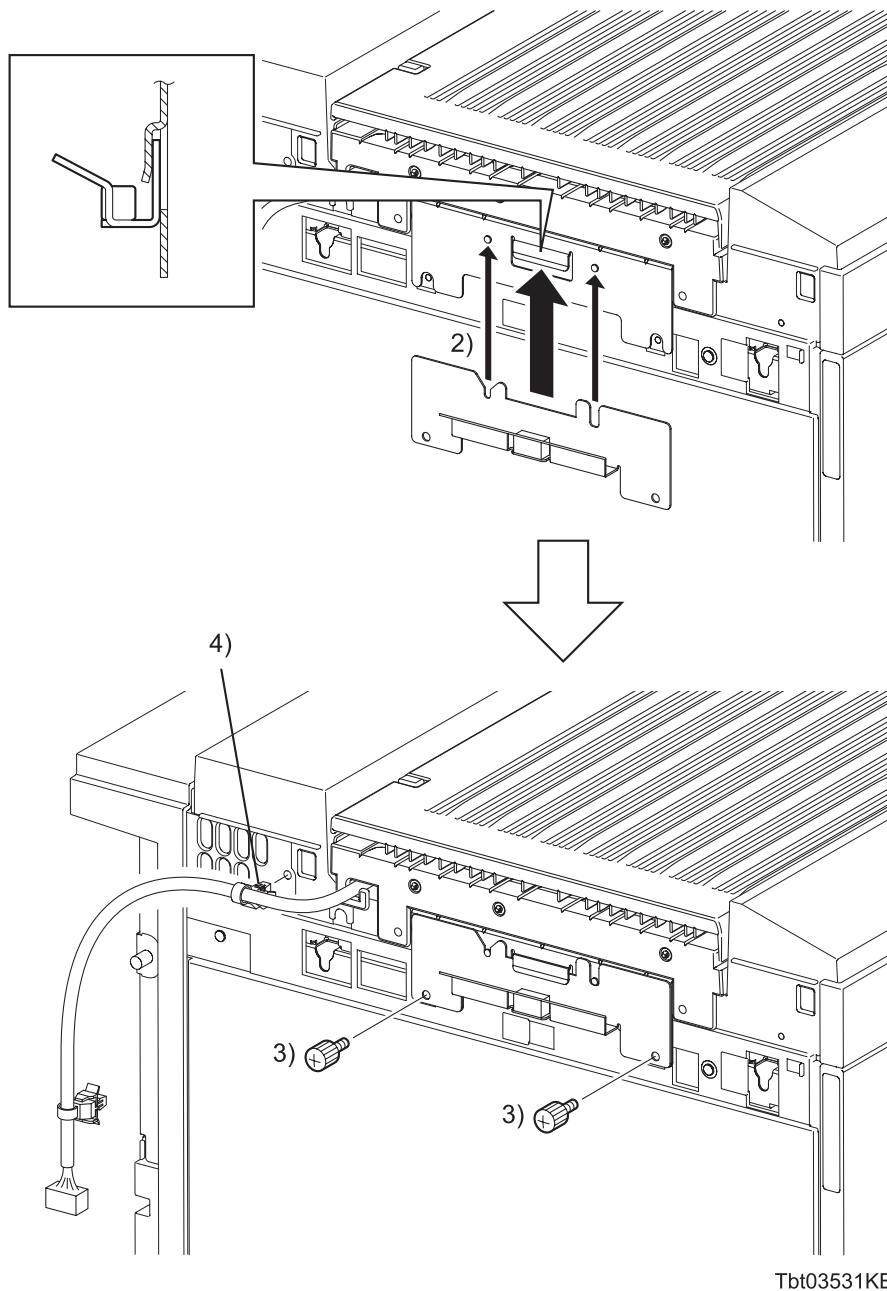


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- 1) Mate the two tabs on the TRANSPORT ASSY A4 with the holes on the printer.

**Continues to the next page.**

## Replacement 9 TRANSPORT ASSY A4 (PL14.2.1)



Tbt03531KB

- 2) Align the two notches on the BRACKET ASSY GUIDE ADD with the bosses on the TRANSPORT ASSY A4 and let the hooks of the TRANSPORT ASSY A4 catch the BRACKET ASSY GUIDE ADD.
- 3) Secure the TRANSPORT ASSY A4 with the two SCREW M4 STEELS while holding the BRACKET ASSY GUIDE ADD.
- 4) Secure the harness of the TRANSPORT ASSY A4 to the printer with the clamp.

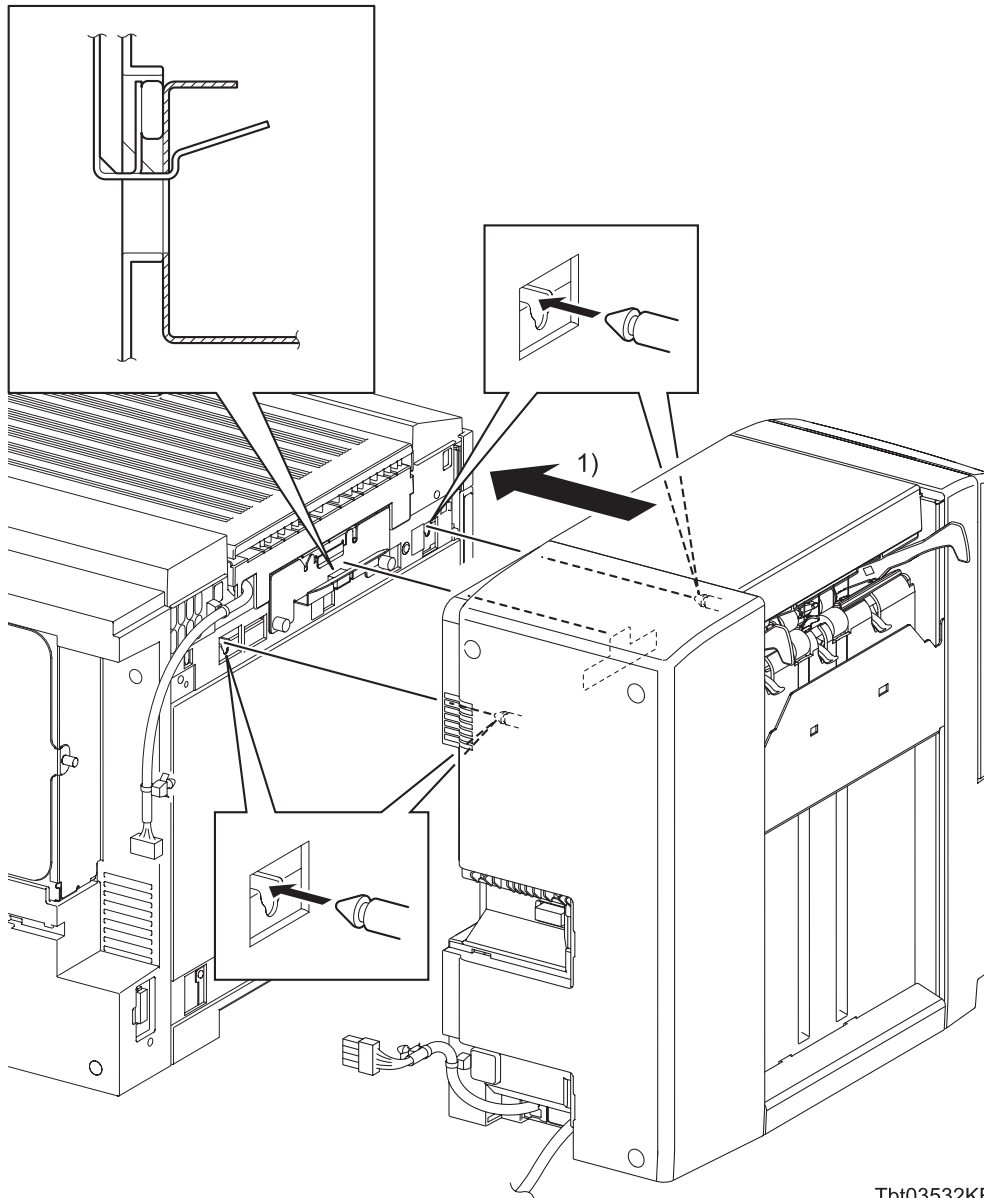
**Go to the next replacement step:**

**Replacement 10 KIT FINISHER ASSY (PL14.1.99)**

## Replacement 10 KIT FINISHER ASSY (PL14.1.99)

**NOTE**

When performing the following step, ensure that the two studs on the FINISHER ASSY are mated with the holes on the printer.



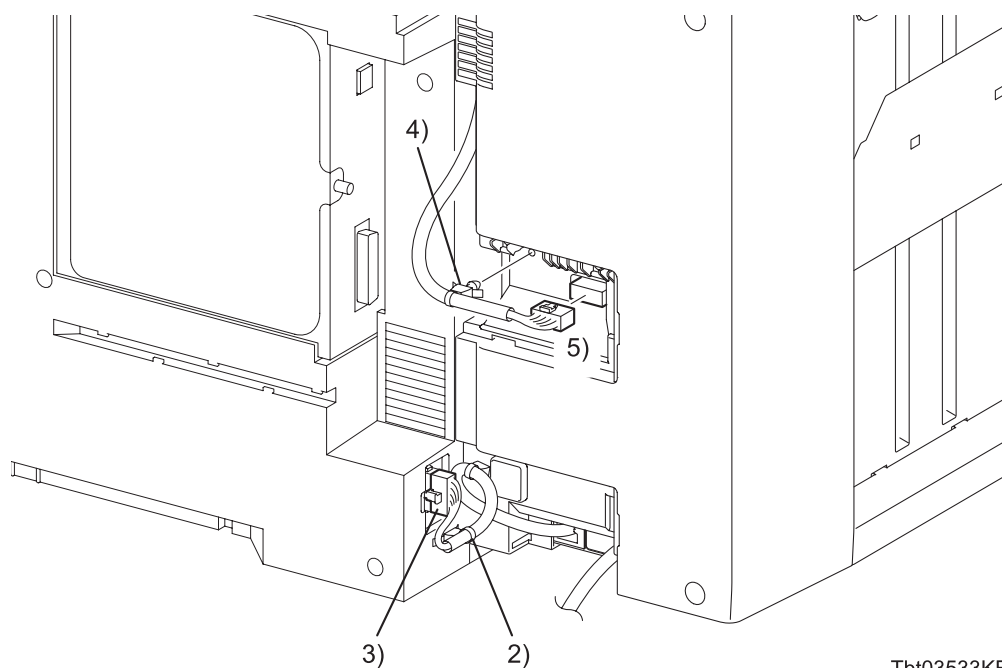
Tbt03532KB

- 1) Replace the FINISHER ASSY to the printer by lifting it slightly with one hand on the bottom of the COVER ASSY FRONT and the other hand on the handle on the COVER REAR so that the right-hand notch on the FINISHER ASSY fits onto the BRACKET GUIDE on the TRANSPORT ASSY A4.

**Continues to the next page.**



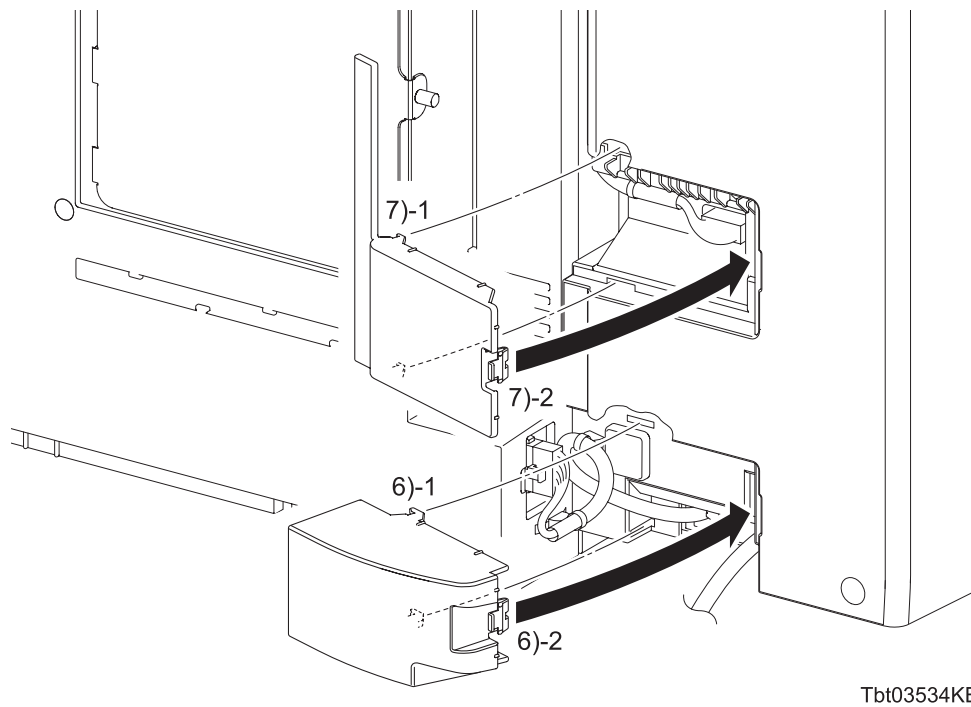
**Replacement 10 KIT FINISHER ASSY (PL14.1.99)**



- 2) Secure the HARNESS ASSY IF A4FIN to the printer with the clamp.
- 3) Engage the connectors (P121/CN4) of the HARNESS ASSY IF A4FIN to the printer.
- 4) Secure the harness of the TRANSPORT ASSY A4 to the FINISHER ASSY with the clamp.
- 5) Engage the connectors (P/J8987) of the TRANSPORT ASSY A4 to the FINISHER ASSY.

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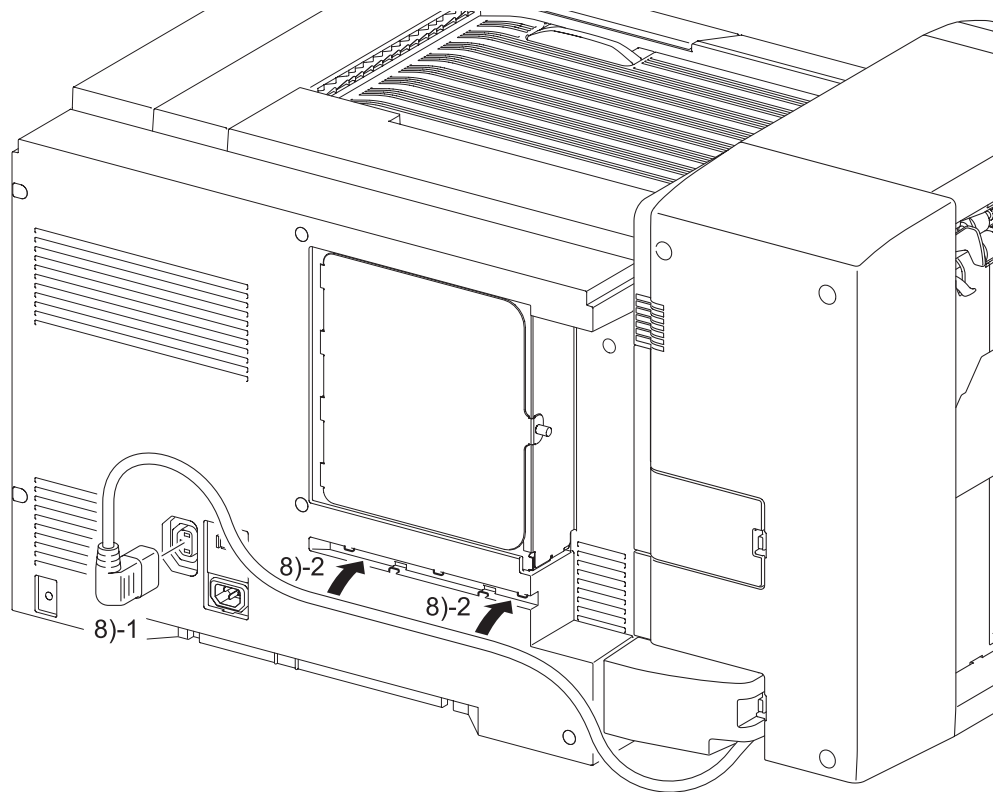
Replacement 10 KIT FINISHER ASSY (PL14.1.99)



- 6) Insert the two tabs on the COVER CONNECTOR2 into the COVER REAR, and then secure with the hook.
- 7) Insert the two tabs on the COVER CONNECTOR into the COVER REAR, and then secure with the hook.

**Continues to the next page.**

**Replacement 10 KIT FINISHER ASSY (PL14.1.99)**



- 8) Engage the AC OUTLET of the CABLE ASSY POWER A4FIN to the printer, and then route the CABLE ASSY POWER A4FIN along the harness guide of the printer.

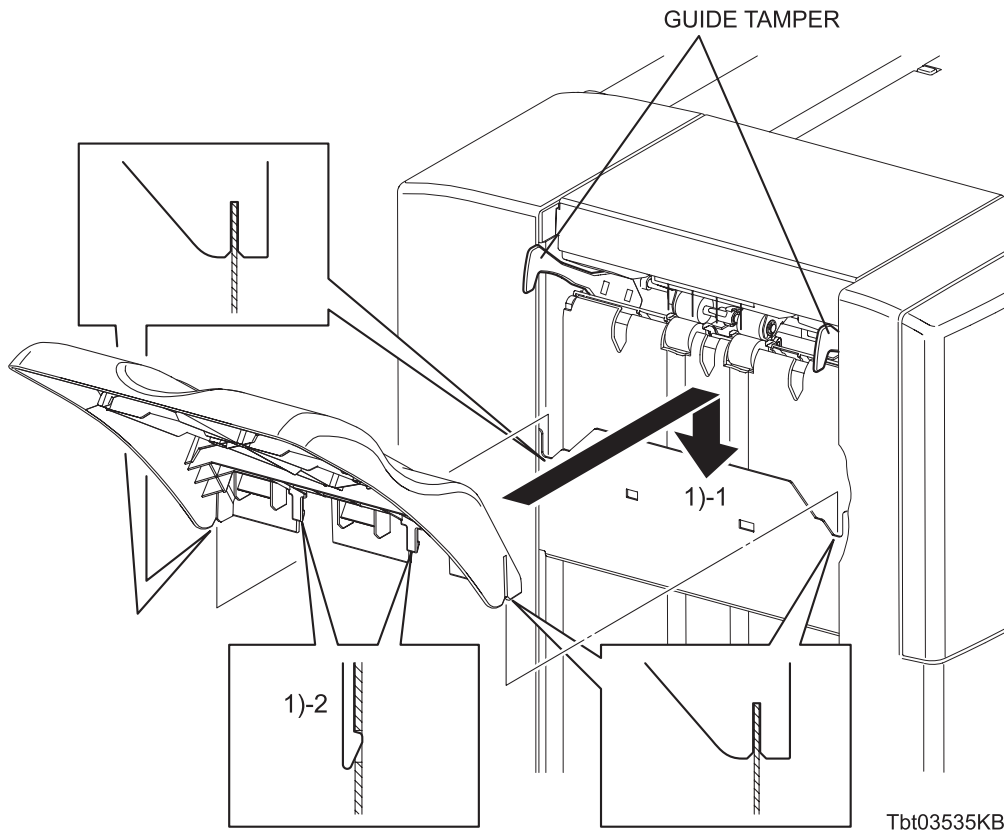
**Go to the next replacement step:**

**Replacement 11 KIT TRAY STACKER (PL14.1.98)**

## Replacement 11 KIT TRAY STACKER (PL14.1.98)

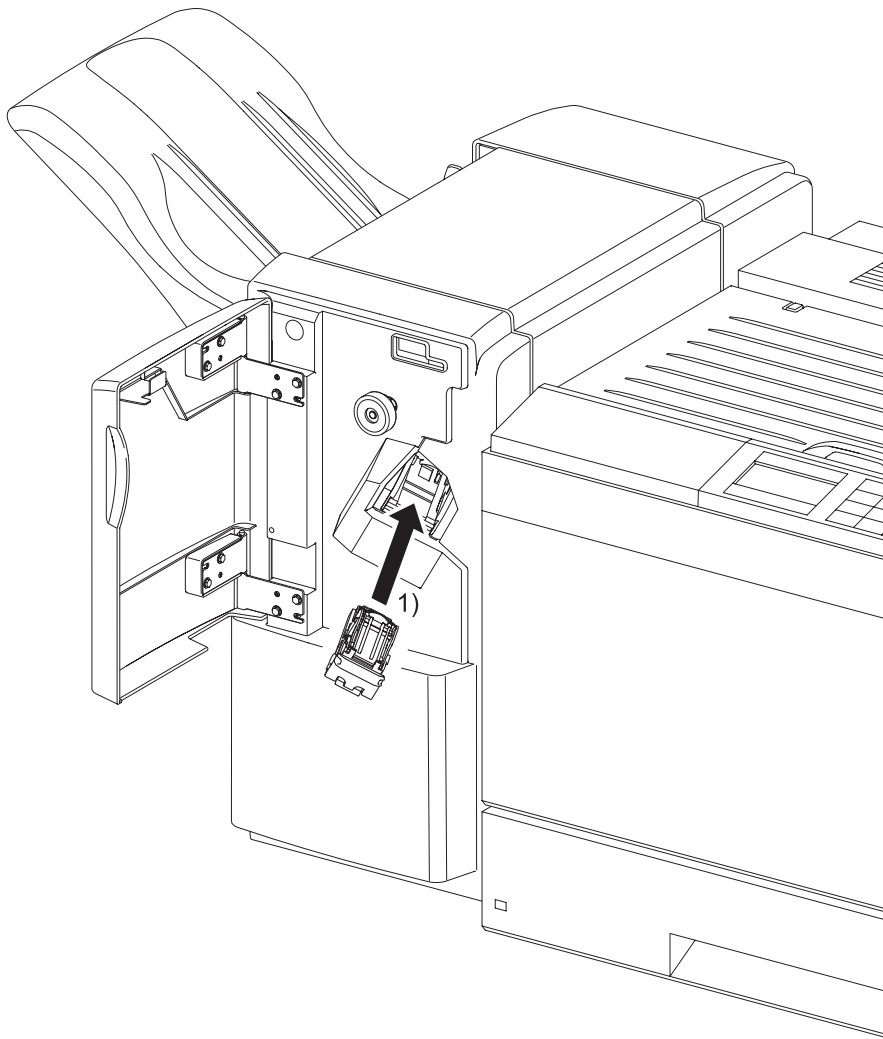
NOTE

When performing the following step, use caution not to damage the GUIDE TAMPERS.



- 1) Replace the TRAY STACKER to the CARRIAGE ASSY (PL14.9.16) on the FINISHER ASSY, and then secure with the two hooks.

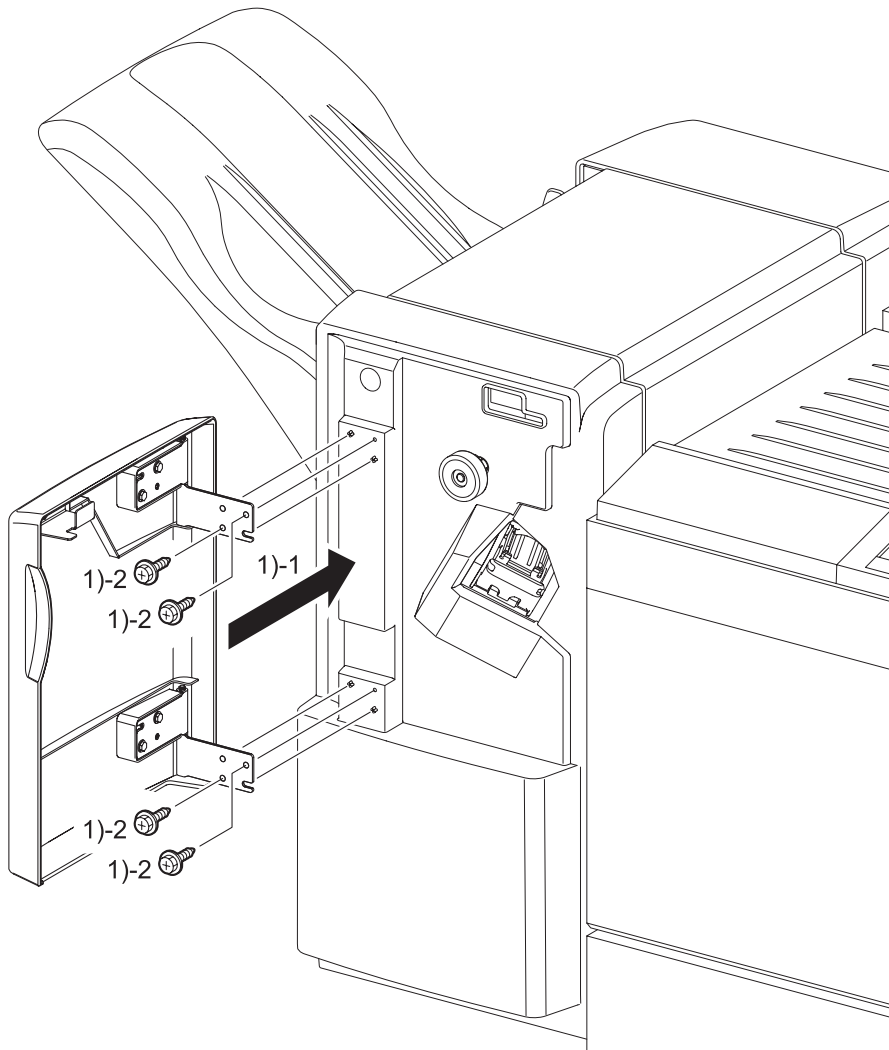
Replacement 12 HOLDER CARTRIDGE (PL14.8.21)



Tbt03536KA

- 1) Insert the HOLDER CARTRIDGE into the FINISHER ASSY.
- 2) Close the COVER ASSY FRONT DOOR.

Replacement 13 COVER ASSY FRONT DOOR (PL14.3.6)



Tbt03540KA

- 1) Mate the four holes of the COVER ASSY FRONT DOOR with the bosses of the COVER FRONT, and then secure with the four screws (silver, flanged, tapping, 8mm).
- 2) Close the COVER ASSY FRONT DOOR.

**Chapter 4 Plug/Jack(P/J) Connector Locations CONTENTS**

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    1.2 FINISHER P/J layout diagram ..... 4 - 2

# 1. Connector [P (plug) / J (jack)]

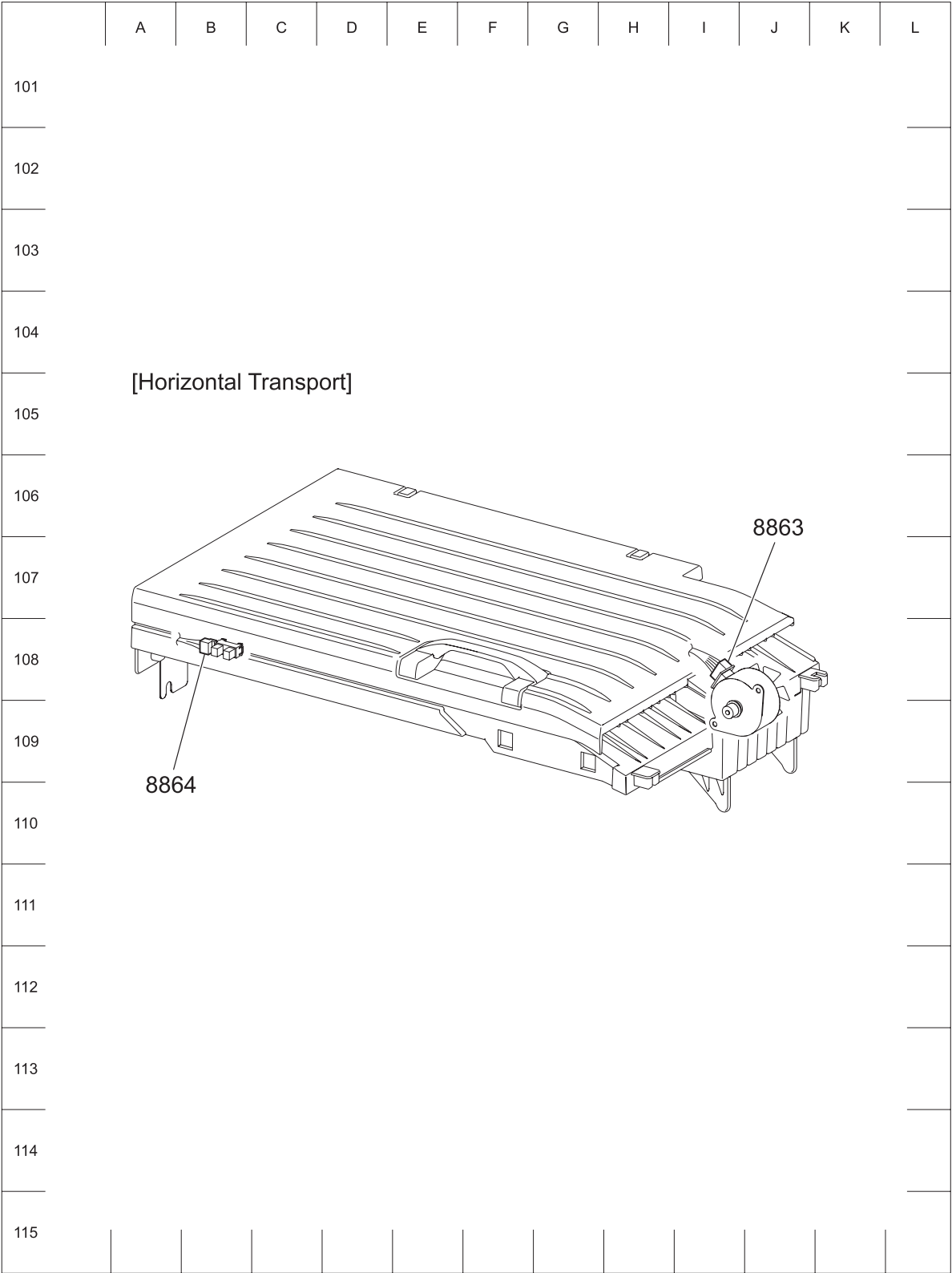
## 1.1 List of P/J

Finisher

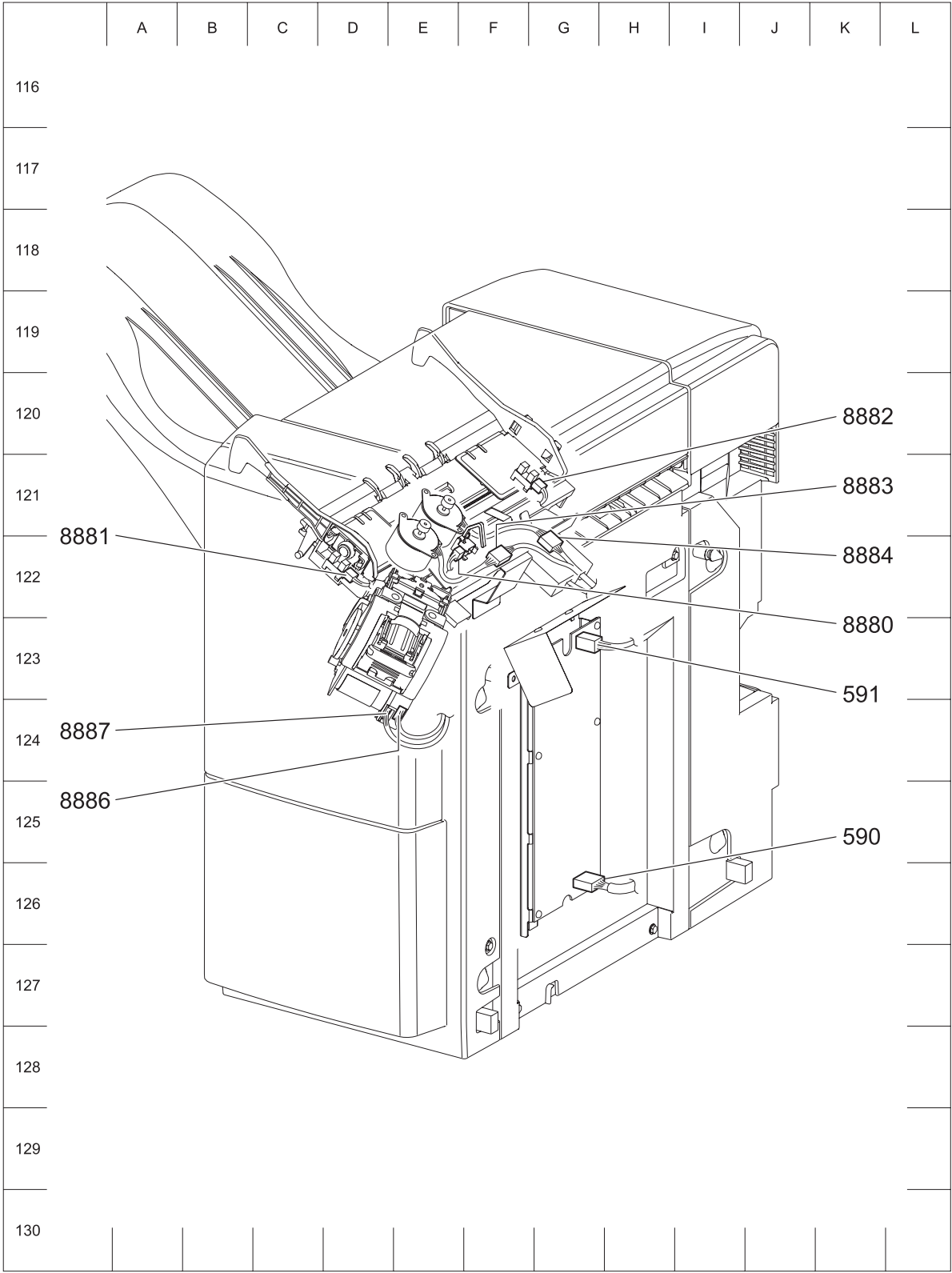
P/J	Coordinates	Remarks
590	G-126	Connects LVPS ASSY and CABLE ASSY POWER A4FIN
591	G-123	Connects LVPS ASSY and HARNESS ASSY LVPS A4FIN
8373	I-144	Not Connect
8863	I-108	Connects MOTOR ASSY PM HTU and HARNESS ASSY HTU A4FIN
8864	B-108	Connects H-TRA Top Cover Open Sensor and HARNESS ASSY HTU A4FIN
8869	E-133	Connects Compile Exit Sensor and HARNESS ASSY SNR2 A4FIN
8870	D-135	Connects Eject Clamp Home Sensor and HARNESS ASSY SNR2 A4FIN
8871	D-135	Connects Set Clamp Home Sensor and HARNESS ASSY SNR2 A4FIN
8872	E-136	Connects Stacker No Paper Sensor and HARNESS ASSY SNR2 A4FIN
8873	E-135	Connects Stack Height Sensor1 and HARNESS ASSY SNR2 A4FIN
8874	E-135	Connects Stack Height Sensor2 and HARNESS ASSY SNR2 A4FIN
8876	D-133	Connects Sub Paddle Solenoid and HARNESS ASSY MOT2 A4FIN
8877	C-134	Connects Set Clamp Clutch and HARNESS ASSY MOT2 A4FIN
8878	D-136	Connects Eject Motor and HARNESS ASSY MOT2 A4FIN
8879	C-135	Connects Transport Motor and HARNESS ASSY MOT2 A4FIN
8880	E-122	Connects Compile Tray No Paper Sensor and HARNESS ASSY SNR1 A4FIN
8881	D-122	Connects Front Tamper Home Sensor and HARNESS ASSY SNR1 A4FIN
8882	G-121	Connects Rear Tamper Home Sensor and HARNESS ASSY SNR1 A4FIN
8883	F-122	Connects Rear Tamper Motor and HARNESS ASSY MOT1 A4FIN
8884	G-122	Connects Front Tamper Motor and HARNESS ASSY MOT1 A4FIN
8885	E-137	Connects Stacker Motor and HARNESS ASSY MOT3 A4FIN
8886	E-124	Connects STAPLER ASSY and HARNESS ASSY SNR1 A4FIN
8887	D-124	Connects STAPLER ASSY and HARNESS ASSY MOT1 A4FIN
8889	G-132	Connects Finisher Front Door Switch and HARNESS ASSY INTL SW A4FIN
8980	H-143	Connects PWBA MAIN A4FIN and HARNESS ASSY LVPS A4FIN
8982	J-144	Connects PWBA MAIN A4FIN and HARNESS ASSY INTL SW A4FIN
8983	J-143	Connects PWBA MAIN A4FIN and HARNESS ASSY MOT1 A4FIN
8984	J-143	Connects PWBA MAIN A4FIN and HARNESS ASSY MOT2 A4FIN
8986	I-142	Connects PWBA MAIN A4FIN and HARNESS ASSY MOT3 A4FIN
8987	H-142	Connects PWBA MAIN A4FIN and Horizontal Transport (HARNESS ASSY HTU A4FIN)
8988	I-142	Connects PWBA MAIN A4FIN and HARNESS ASSY SNR1 A4FIN
8989	I-142	Connects PWBA MAIN A4FIN and HARNESS ASSY SNR2 A4FIN
8990	H-144	Connects PWBA MAIN A4FIN and HARNESS ASSY IF A4FIN
AC OUTLET	A-141	Connects CABLE ASSY POWER A4FIN and Printer (HARNESS ASSY FIN PWR)
CN4	A-139	Connects HARNESS ASSY IF A4FIN and Printer (HARNESS ASSY FIN)



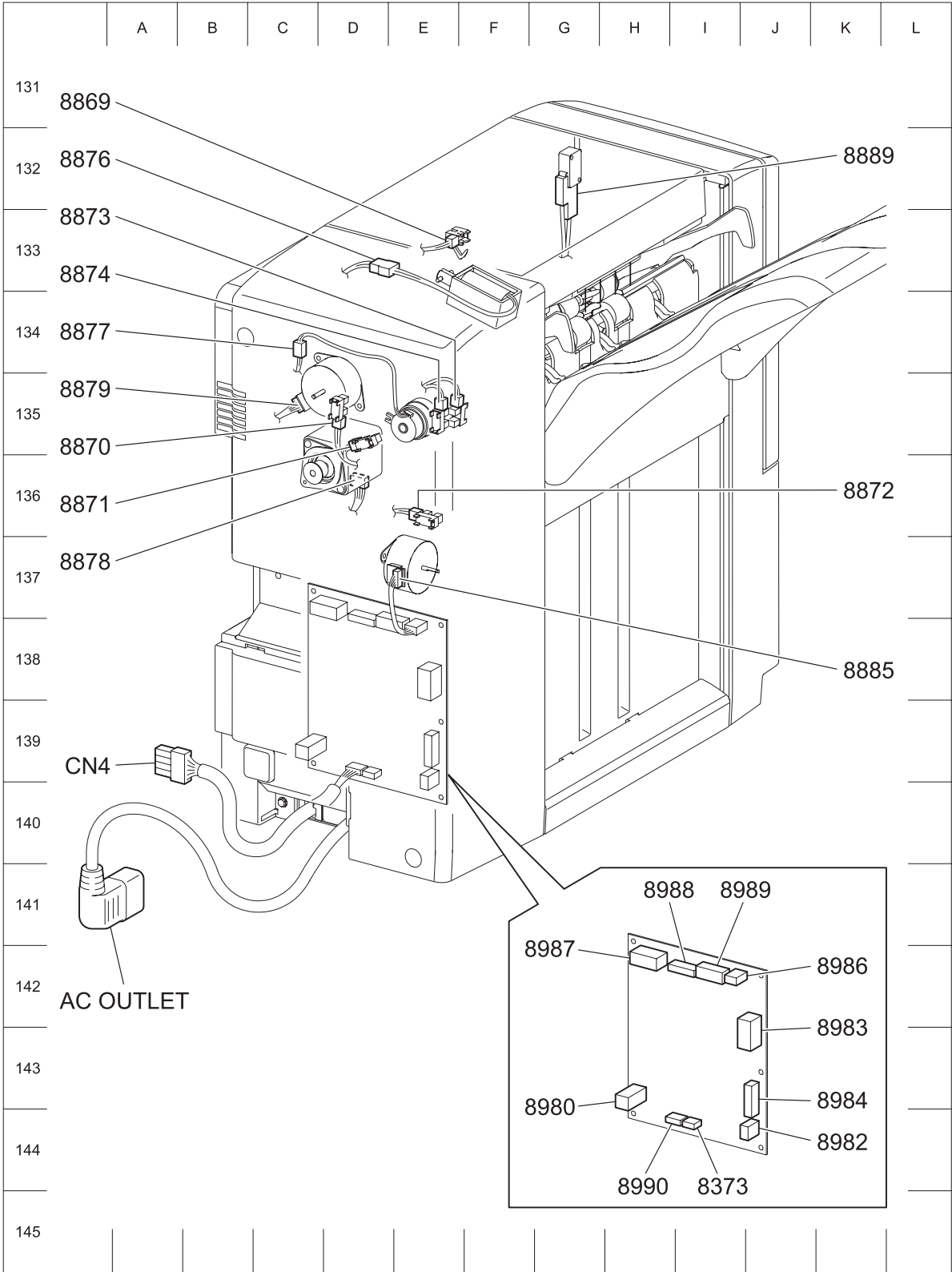
1.2 FINISHER P/J layout diagram



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## **Chapter 6 Principles of Operation CONTENTS**

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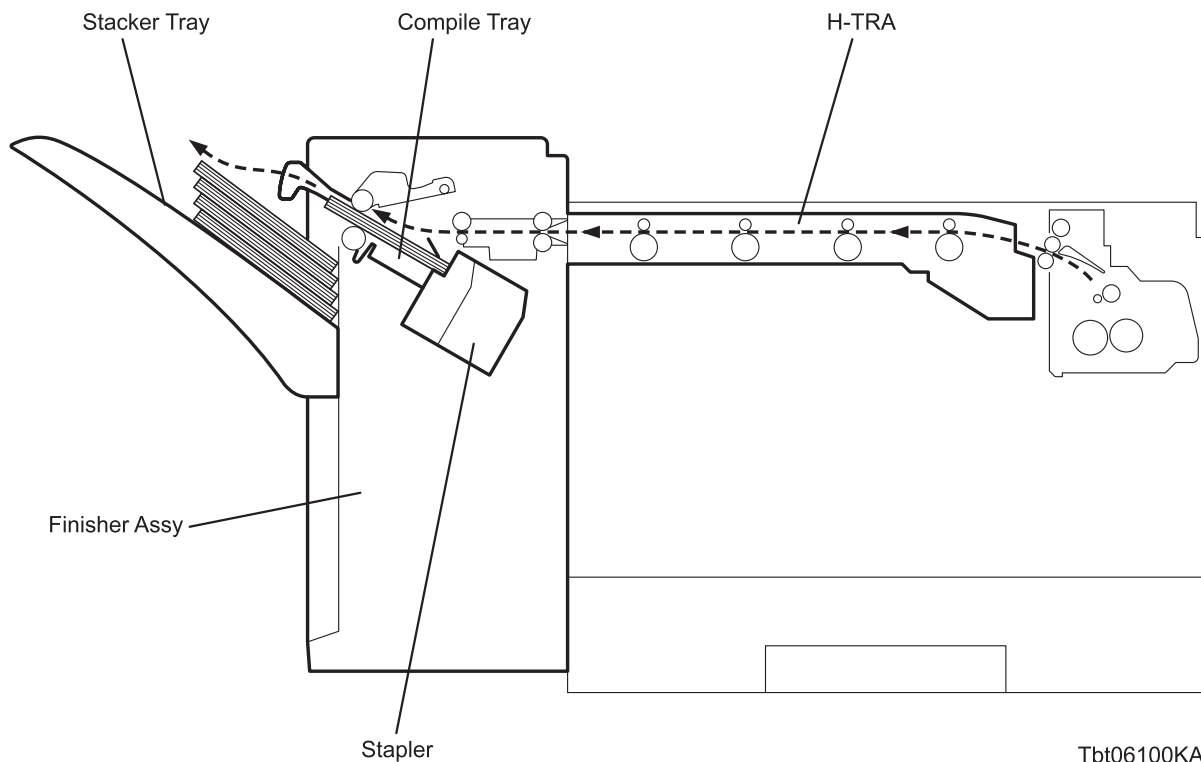
## 1. Overview

The Finisher is a device that finishes the sheets ejected by the Printer with post-processing such as stapling, sorting, and stacking, and then deposits them in its Stacker Tray.

### 1.1 Configuration

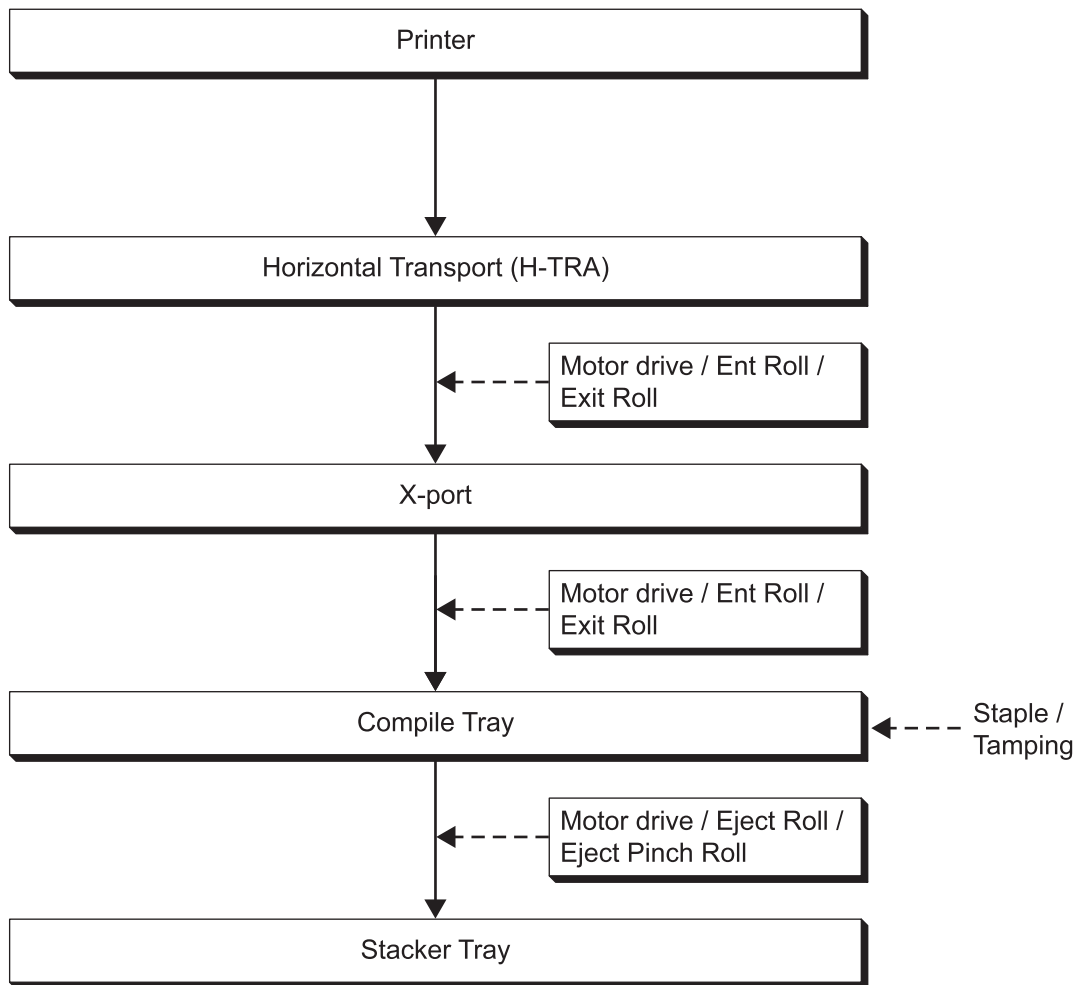
The Finisher consists of the following blocks:

- Horizontal Transport (hereinafter, H-TRA)  
Relays the sheets ejected from the Printer to the Finisher.
- Compile Tray  
Aligns the sheets.
- Stapler  
Staples the sheets in the specified position.
- Stacker Tray  
Holds the sheets ejected.



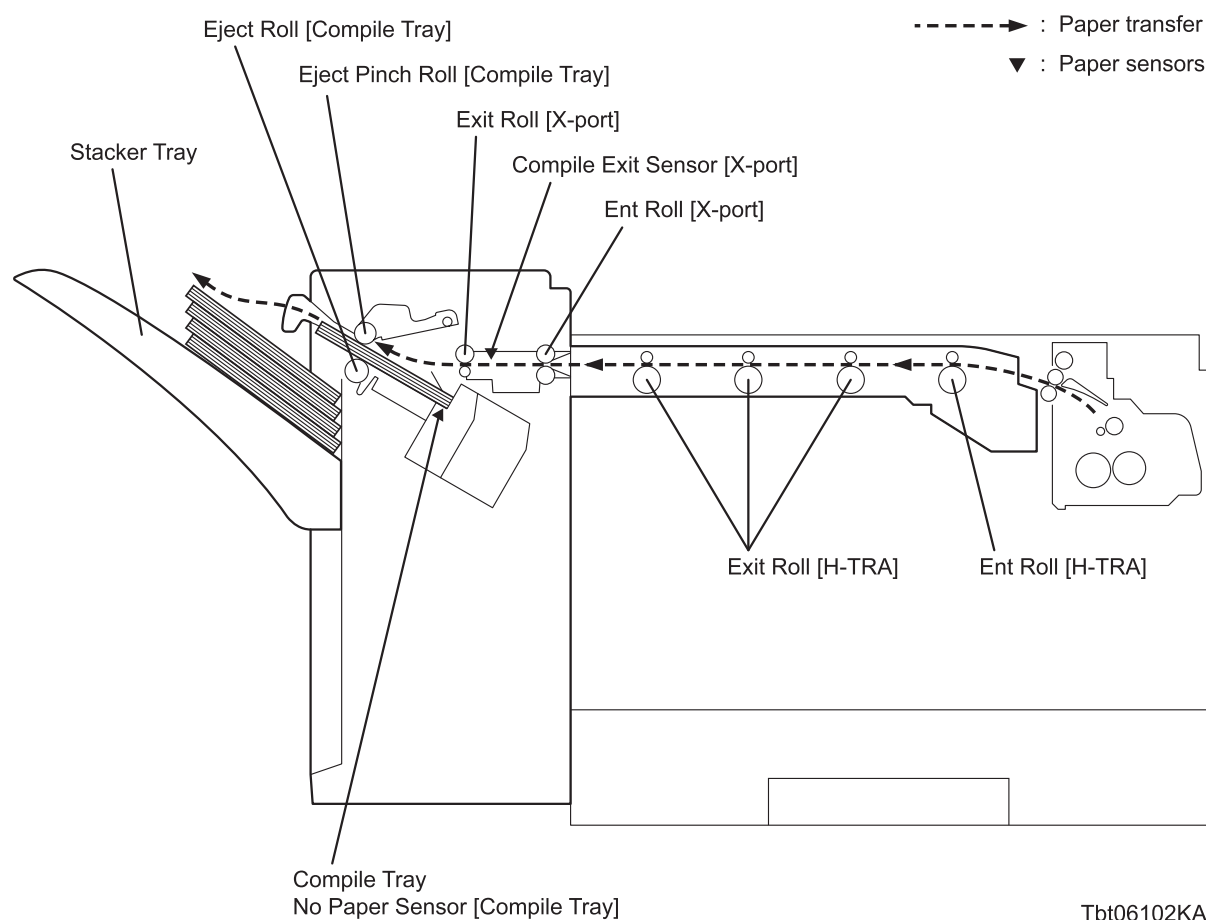
## 2. Paper Feeding

### 2.1 Paper Path



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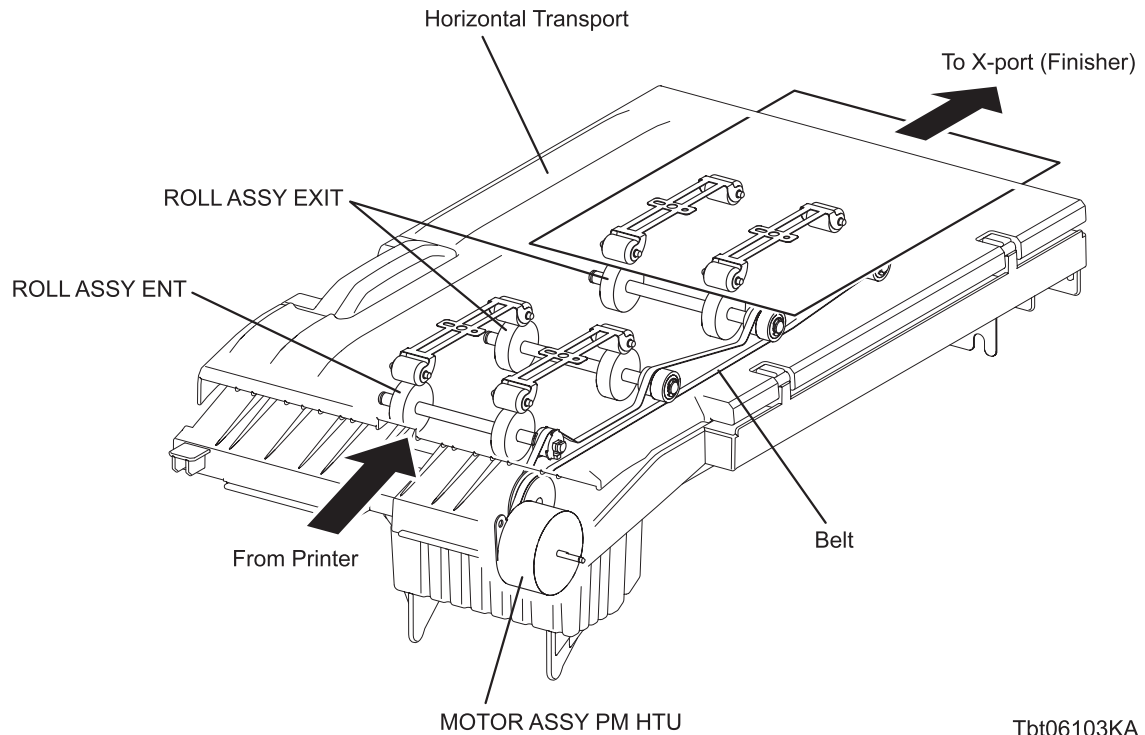
## 2.2 Layout of Paper Path





### 2.3 Feeding in Horizontal Transport (H-TRA)

The sheet coming in from the Exit section of the Printer is fed to the X' port by the ROLL ASSY ENT (PL 14.2.24) and the ROLL ASSY EXIT (PL 14.2.26) rotatably driven by the MOTOR ASSY PM HTU (PL 14.2.16) via the Belt.

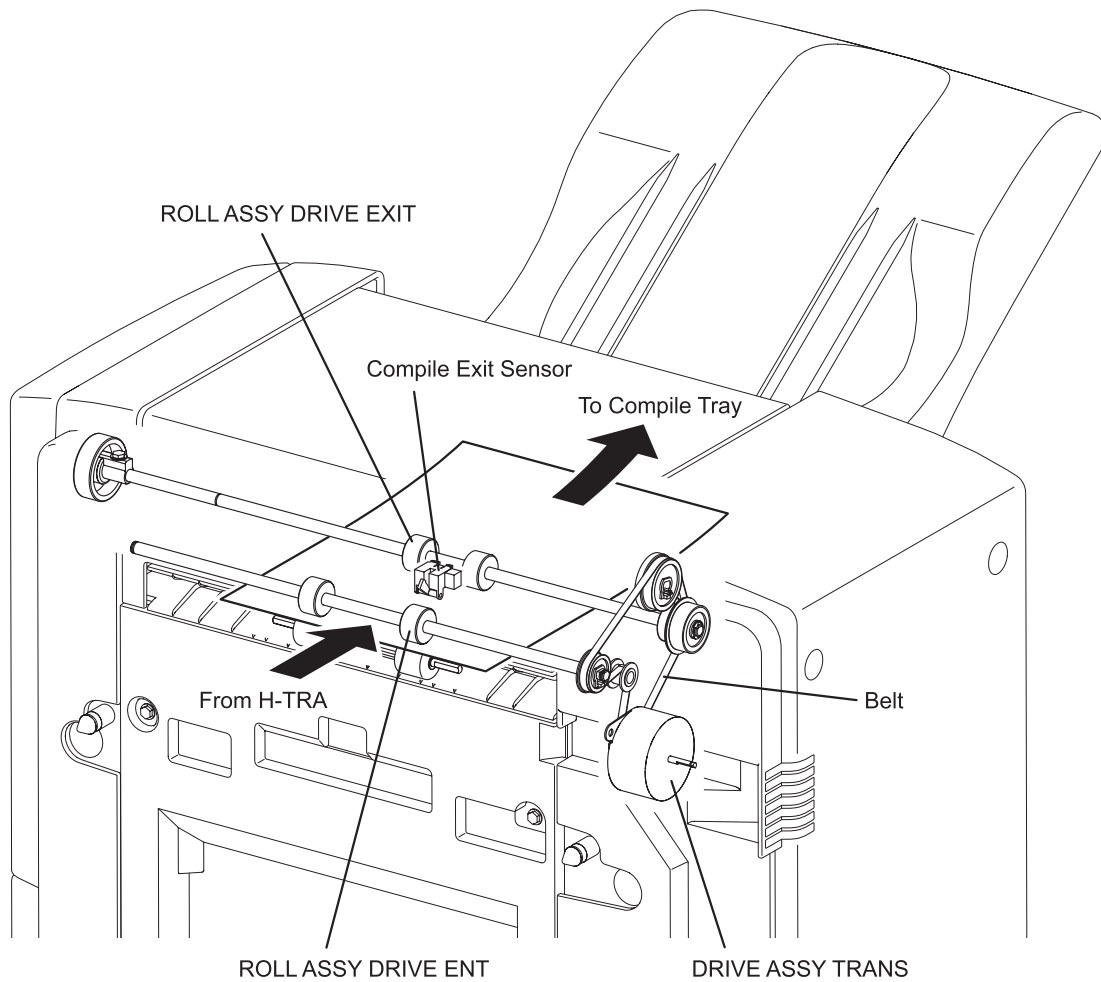


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## 2.4 Feeding in X' port

The sheet coming in from the H-TRA is fed to the Compile Tray by the ROLL ASSY DRIVE ENT (PL 14.7.11) and the ROLL ASSY DRIVE EXIT (PL 14.7.12) rotatably driven by the DRIVE ASSY TRANS (PL 14.7.16) via the Belt.

The passage of the sheet is detected by the COMPILE EXIT SENSOR (PL 14.7.9). (No paper: Sensor beam blocked. Refer to 3.2.1 Major Components and Their Functions.)



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## 2.5 Feeding in Compile Tray

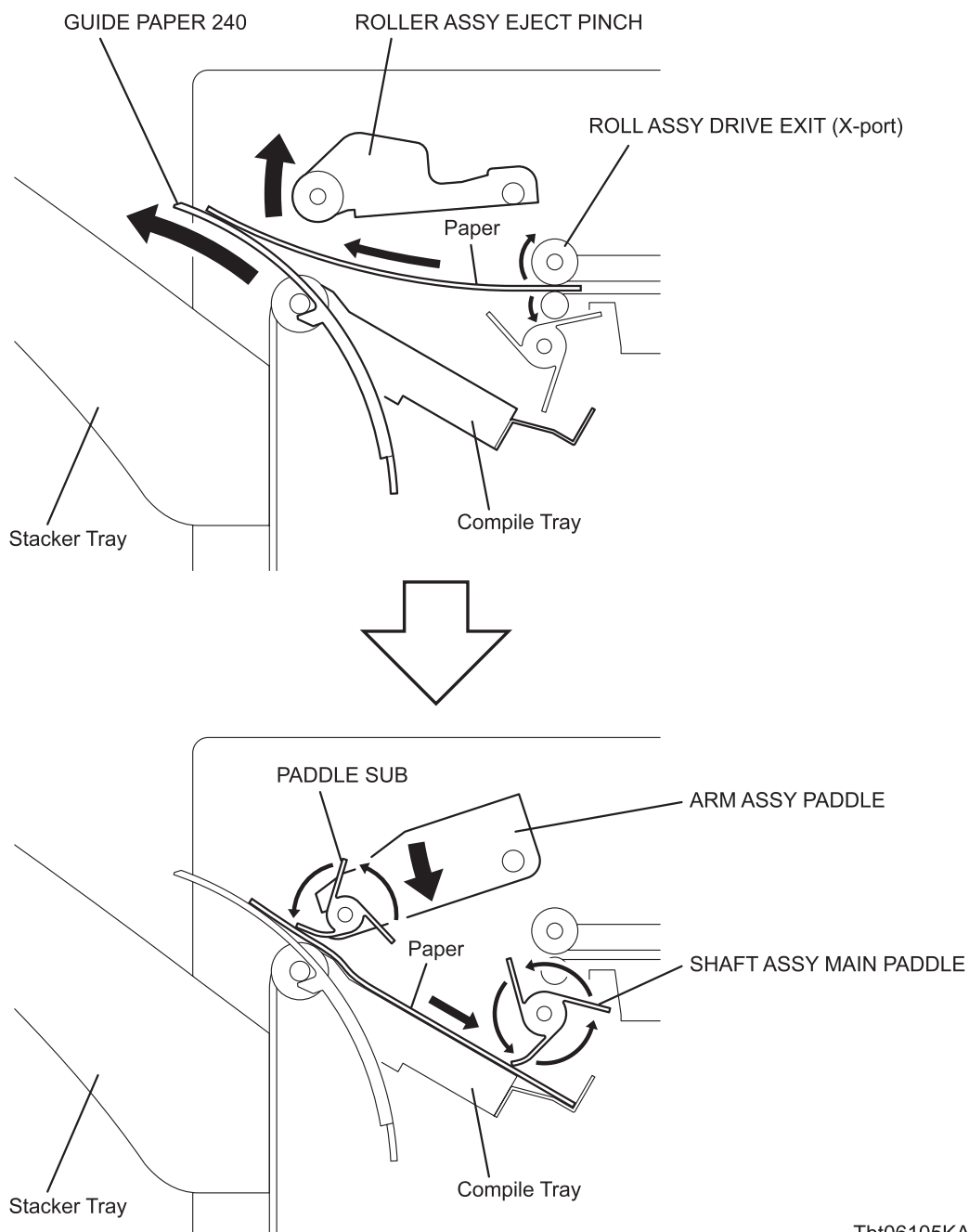
While the GUIDE PAPER 240 (PL 14.5.38) slides out toward the Stacker Tray, driven by the MOTOR ASSY EJECT (PL 14.5.6), the ROLLER ASSY EJECT PINCH (PL 14.6.3) retracts upward to allow the sheet to come in from the X' port.

The sheet coming in from the X' port falls onto the Compile Tray.

When stapling or tamping is not specified, the ROLLER ASSY EJECT PINCH lowers to allow the sheet to exit to the Stacker Tray. (Refer to 2.6 Ejection to Stacker Tray.)

When stapling or tamping is specified, the ARM ASSY PADDLE (PL 14.6.4) lowered by the SOLENOID ASSY (PL 14.6.20), upon the falling of the sheet onto the Compile Tray.

Then, the PADDLE SUB (PL 14.6.8) of the ARM ASSY PADDLE and the Main Paddle of the SHAFT ASSY MAIN PADDLE (PL 14.7.13) rotate driven by the DRIVE ASSY TRANS (PL 14.7.6), to slide the sheet backward (reverse to the exit direction) until it stops against the flange of the Compile Tray.



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## 2.6 Ejection to Stacker Tray

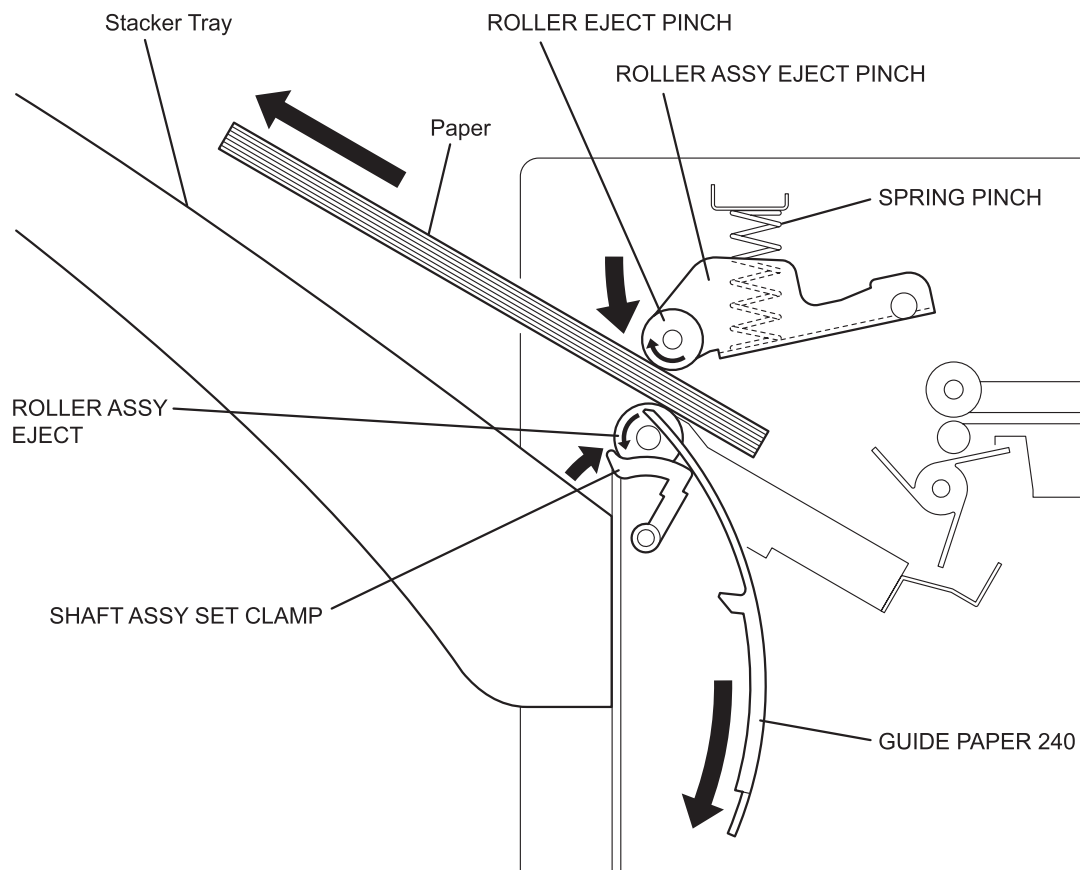
When the processing as stapling or tamping is completed in the Compile Tray, the ROLLER ASSY EJECT PINCH (PL 14.6.13) is lowered by the torque of the MOTOR ASSY EJECT (PL 14.5.6) and the spring pressure of the SPRING PINCH (PL 14.6.2) to guide the sheet to the point between the ROLLER EJECT PINCH (PL 14.6.16) and the ROLLER ASSY EJECT (PL 14.6.31).

Then, the sheet is ejected to the Stacker Tray by the ROLLER ASSY EJECT that rotates in the normal direction driven by the MOTOR ASSY EJECT and controlled by the GEAR ASSY SECTOR (PL 14.5.18).

During the ejection to the Stacker Tray, the GUIDE PAPER 240 (PL 14.5.38) slides back to its original position driven by the MOTOR ASSY EJECT so as not to obstruct the passage of the sheet.

Meanwhile, the CLUTCH Z34 (PL 14.5.25) transmits the torque of the MOTOR ASSY EJECT to the SHAFT ASSY SET CLAMP (PL 14.6.32), retracting the Holder of the SHAFT ASSY SET CLAMP inside the Finisher so as not to obstruct the passage of the sheet.

Upon completion of the sheet ejection, the Holder of the SHAFT ASSY SET CLAMP returns to its original position to hold down the sheet ejected.



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### 3. Functions of Major Functional Components

#### 3.1 H-TRA

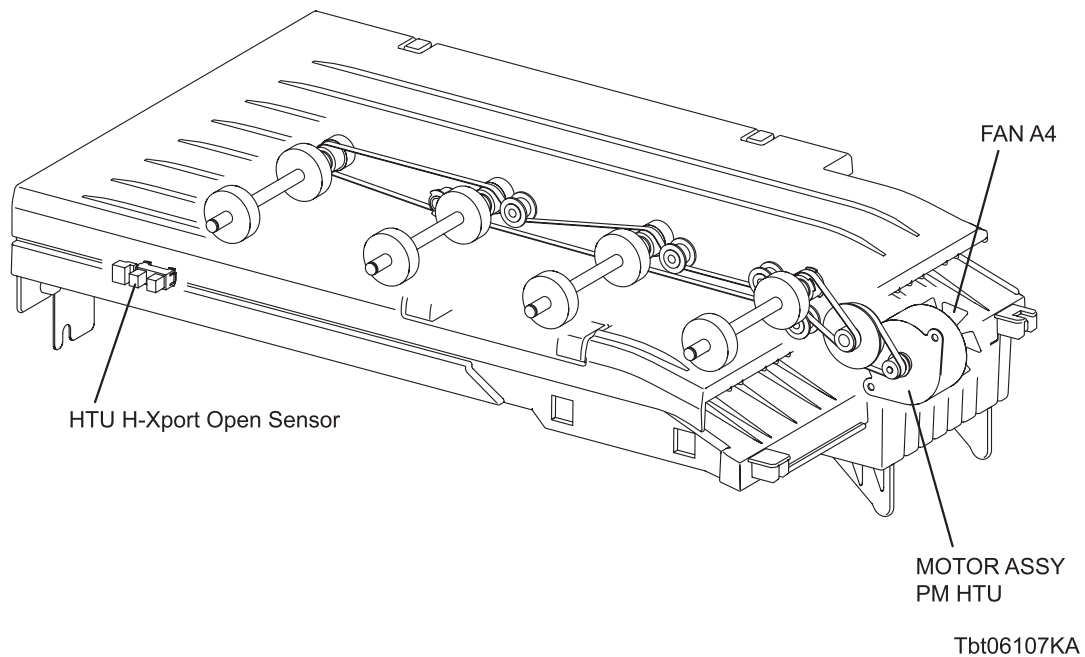
##### 3.1.1 Major Components and Their Functions

- HTU H-XPORT OPEN SENSOR (PL 14.2.36)

A sensor for detecting whether the COVER ASSY TOP of the H-TRA is open.  
(COVER open: Sensor beam received)

- MOTOR ASSY PM HTU (PL 14.2.14)

A motor that drives the belt for paper feeding in the H-TRA. It is provided with the FAN A3 (PL14.2.15) for cooling down the motor in the H-Tra.



## 3.2 X' port

### 3.2.1 Major Components and Their Functions

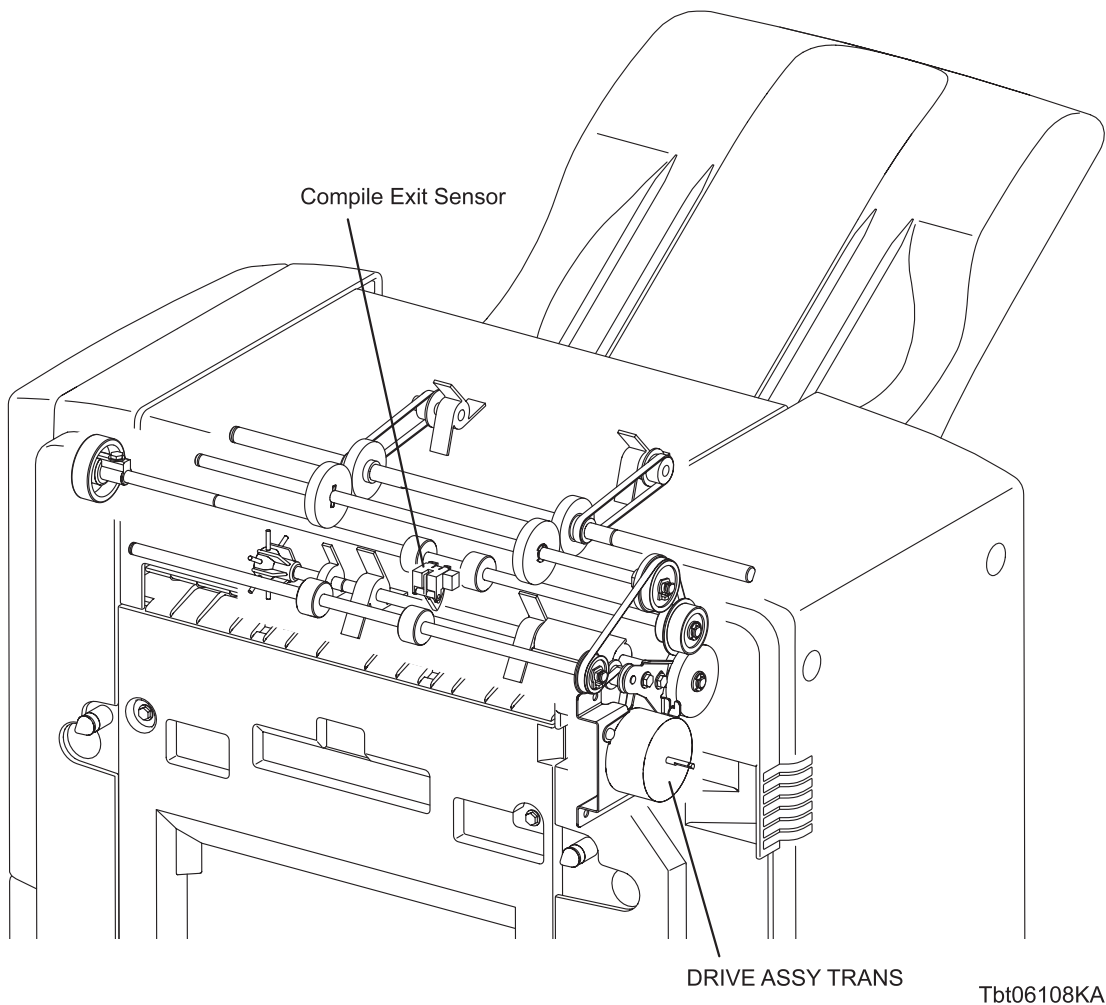
- COMPILE EXIT SENSOR (PL 14.7.9)

A sensor for detecting the presence of the paper in the X' port based on the change of its actuator position.

(No paper: Sensor beam blocked)

- DRIVE ASSY TRANS (PL 14.7.16)

A motor that drives all feeding-related rollers in the X' port and Compile Tray.

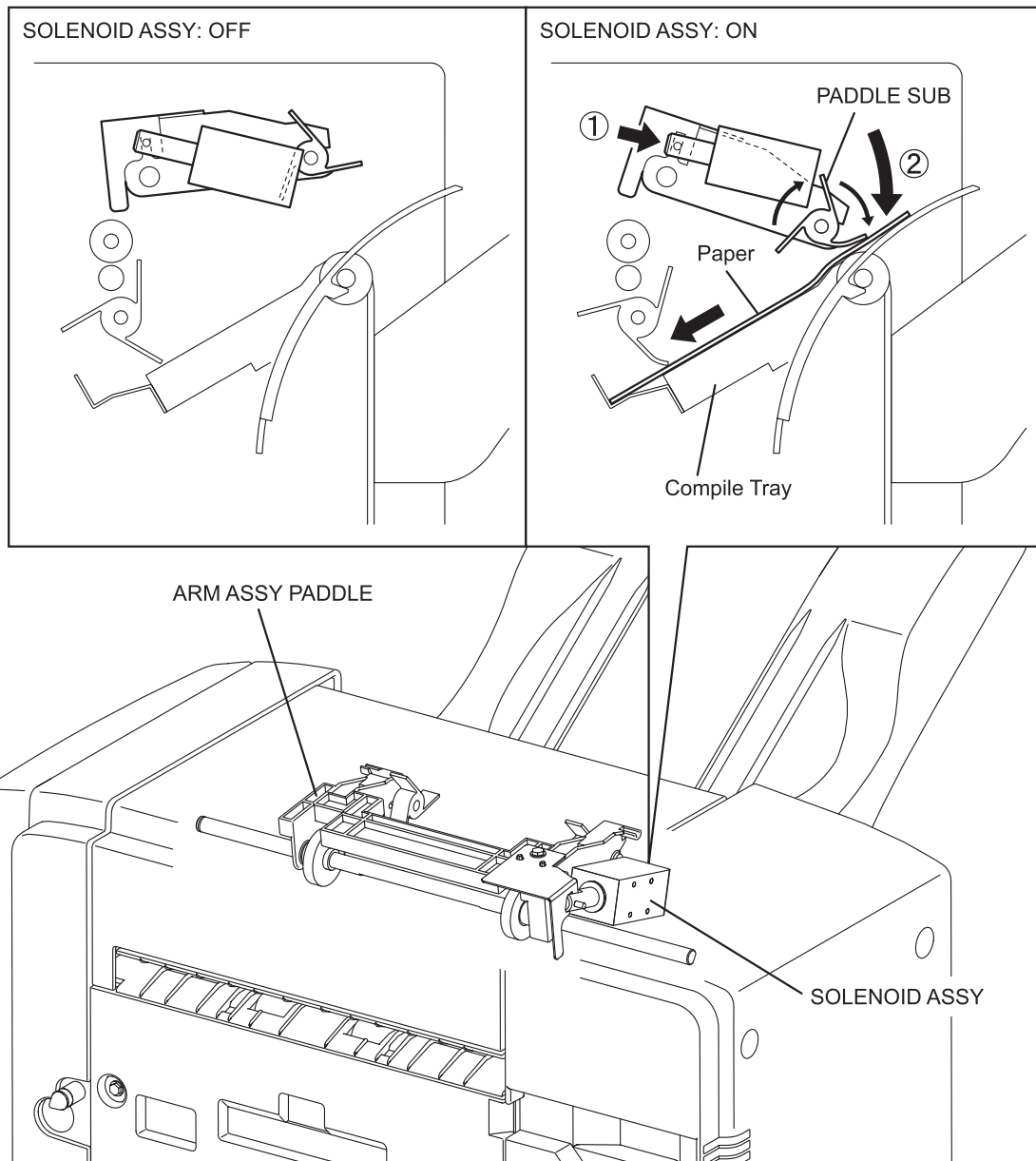


### 3.3 Compile Tray

#### 3.3.1 Major Components and Their Functions

##### - SOLENOID ASSY (PL 14.6.20)

A solenoid that lowers the ARM ASSY PADDLE onto the sheet fed from the X' port, allowing the rotating PADDLE SUB to align the sheet to the flange of the Compile Tray.



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- COMPILE TRAY NO PAPER SENSOR (PL 14.8.13)

Detects the presence of the paper in the Compile Tray based on the change of its actuator position.  
(Paper present: Sensor beam received)

- FRONT TAMPER HOME SENSOR (PL 14.8.9)

A sensor for detecting that the GUIDE TAMPER FRONT A4 (PL 14.8.4) is at its home position.  
(Home position: Sensor beam blocked).

- REAR TAMPER HOME SENSOR (PL 14.8.9)

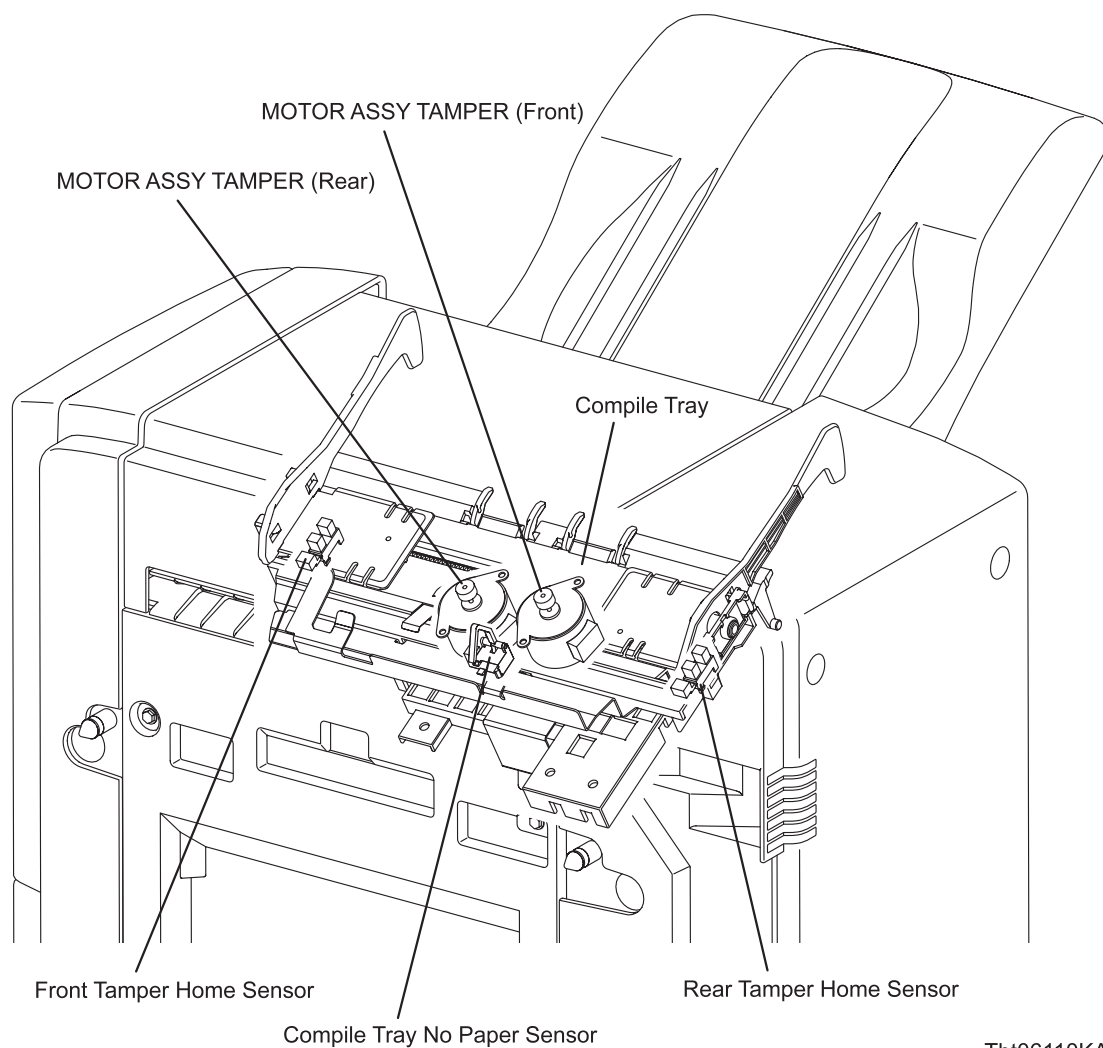
A sensor for detecting that the GUIDE TAMPER REAR A4 (PL 14.8.5) is at its home position.  
(Home position: Sensor beam blocked)

- MOTOR ASSY TAMPER (FRONT) (PL 14.8.18)

A motor that moves the GUIDE TAMPER FRONT A4 for tamping operation.

- MOTOR ASSY TAMPER (REAR) (PL 14.8.18)

A motor that moves the GUIDE TAMPER REAR A4 for tamping operation.



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### 3.3.2 Operations in Compile Tray

In the Compile Tray, the sheets fed from the X' port undergo the tamping operation for alignment with respect to width direction, and the offset stacking operation for placing the sets of sheets staggered in the Stacker Tray.

#### 3.3.2.1 Tamping

The sheets fed from the X' port undergo the tamping operation in the Compile Tray for alignment with respect to width direction.

Tamping refers to the operation of aligning the sheet to the specified position by sliding the GUIDE TAMPER FRONT A4 (PL 14.8.4) and the GUIDE TAMPER REAR A4 (PL 14.8.5) until they contact the sheet edges by the torque from the respective motors (MOTOR ASSY TAMPER: PL 14.8.18).

This operation is executed when the specified time has elapsed after the trail edge of the sheet passed through the Compile Exit Sensor (PL14.7.9).

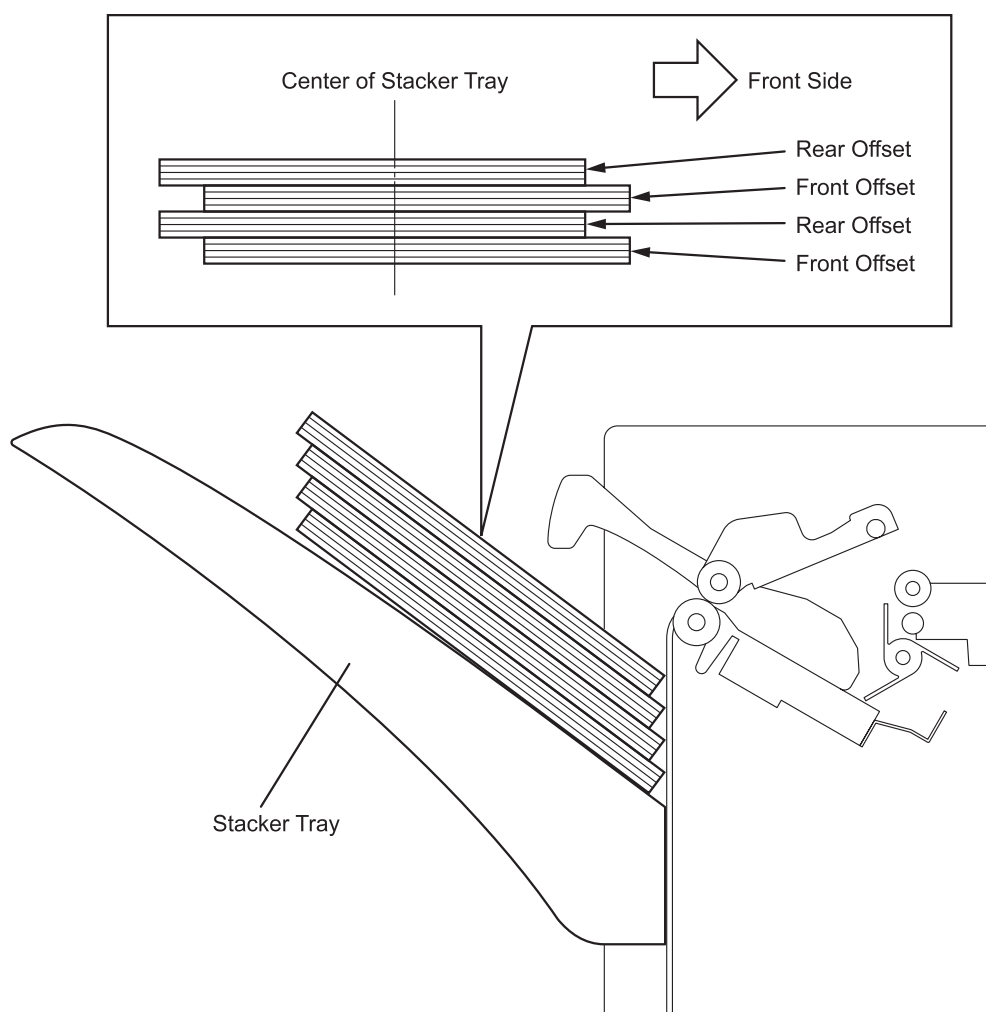
A tamping is executed for each incoming sheet. When stapling is specified, an additional tamping is executed after the tamping for the last sheet is completed.

Tamping includes the following two modes:

- Front Tamping  
Activates the Rear Tamper only, with the Front Tamper locked.
- Rear Tamping  
Activates the Front Tamper only, with the Rear Tamper locked.

### 3.3.2.2 Offset Stacking

Offset stacking staggers the position where the ejected sheets land on the Stacker Tray to help separate the stack of sheets into groups such as jobs or collated sets.

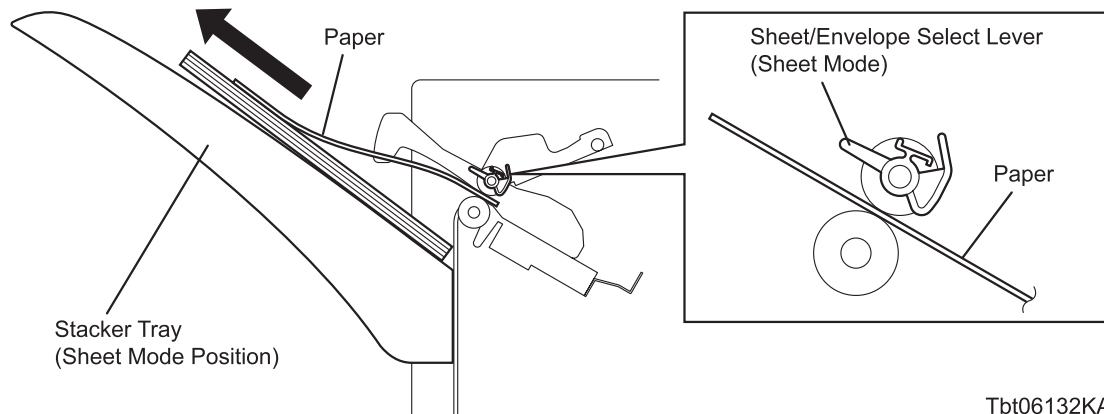


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### 3.3.2.3 Sheet/Envelope Select Lever

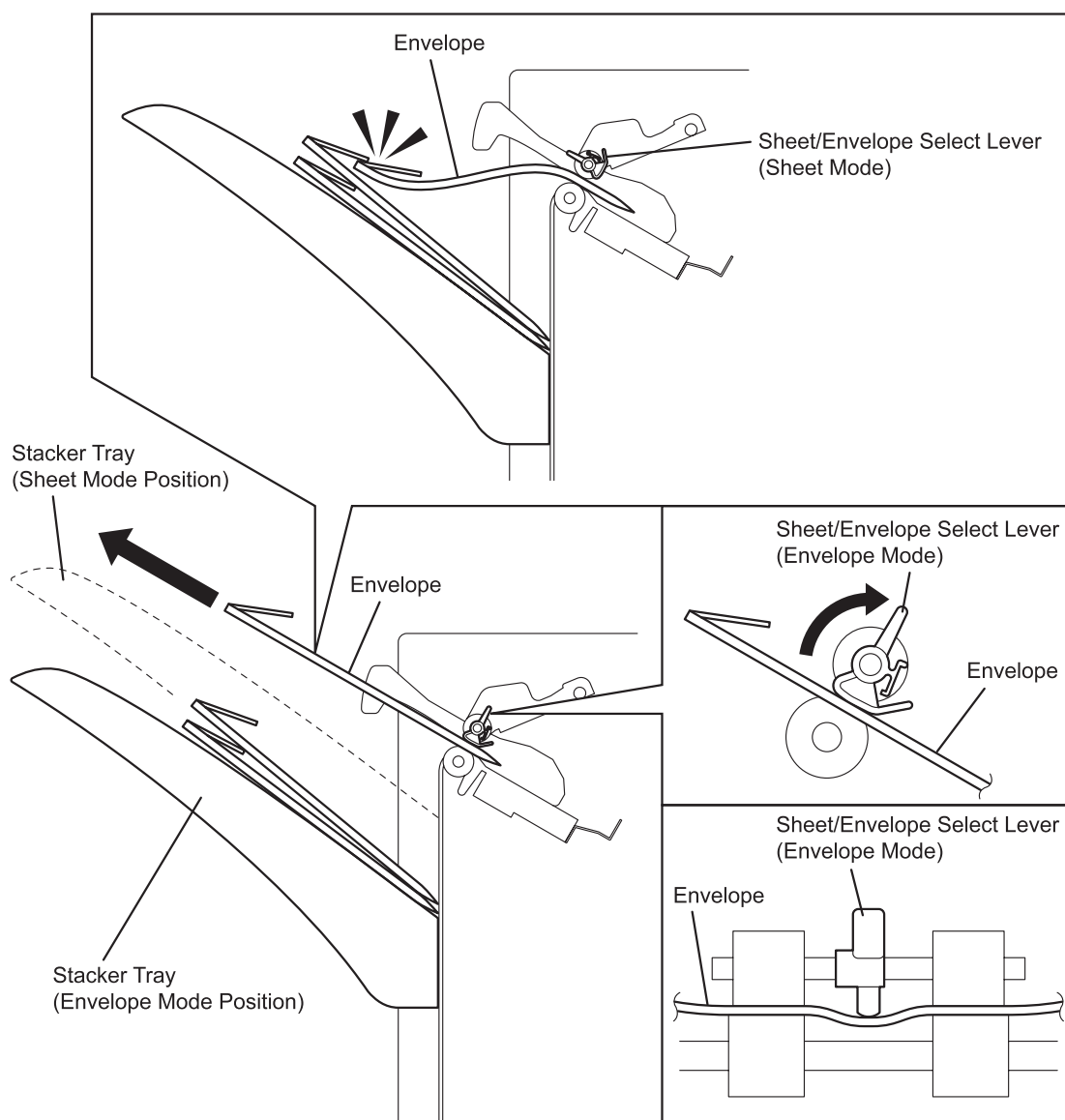
The Sheet/Envelope Select Lever can be switched to the "Sheet Mode" or "Envelope Mode" position depending on the print media to be used.

In the "Sheet Mode", the sheet exits to the Stacker Tray without contacting the Select Lever.



In the "Envelope Mode", the envelope is corrugated along the feeding direction by the projection from the Select Lever. This corrugation increases the rigidity of the envelope, thereby preventing the lead edge from slipping underneath the flap of the previous envelope.

Meanwhile, the Stacker Tray lowers slightly from the normal position to ensure that the envelopes are stacked up neatly.



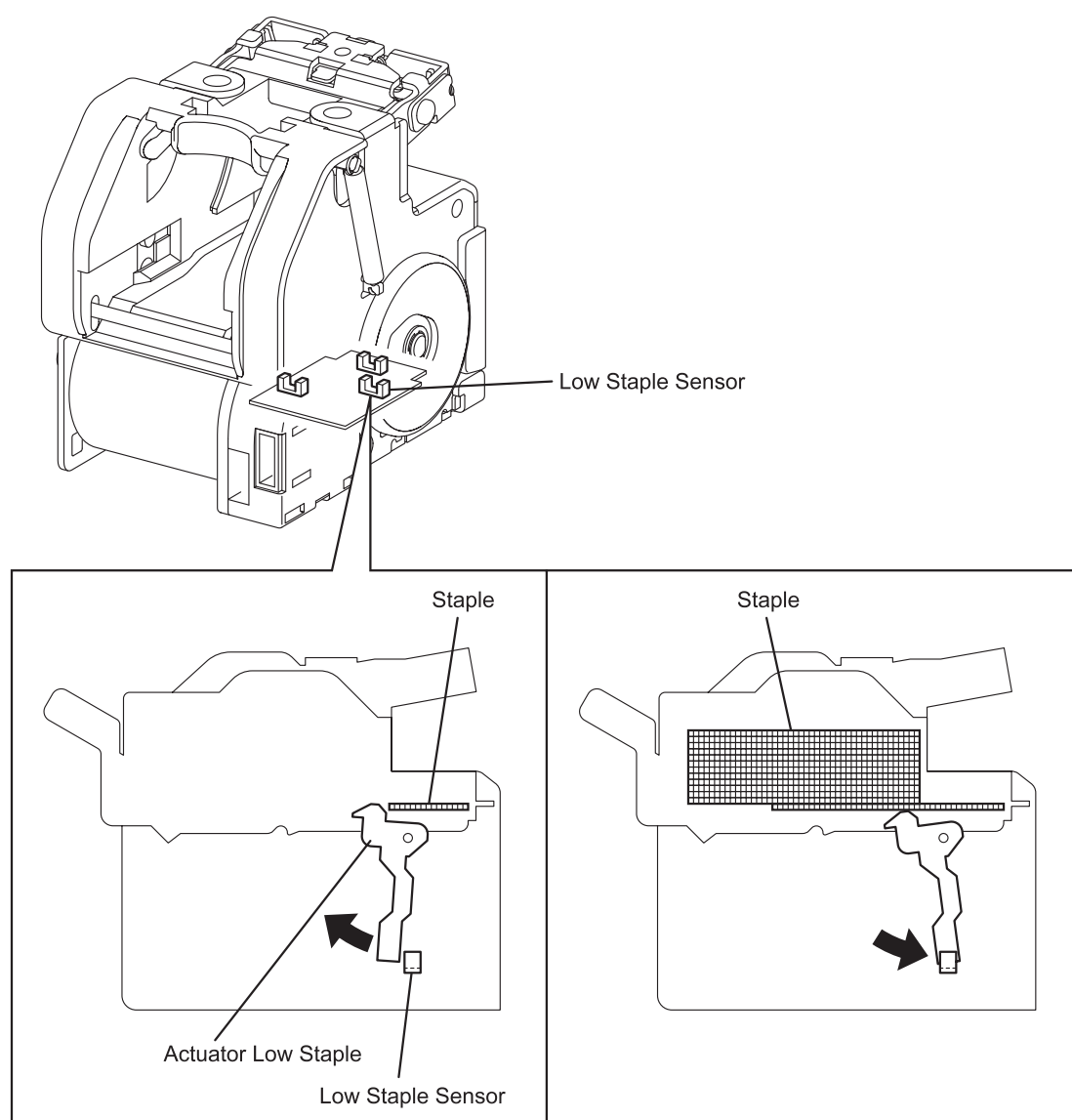
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## 3.4 Stapler

### 3.4.1 Major Components and Their Functions

#### - Low Staple Sensor

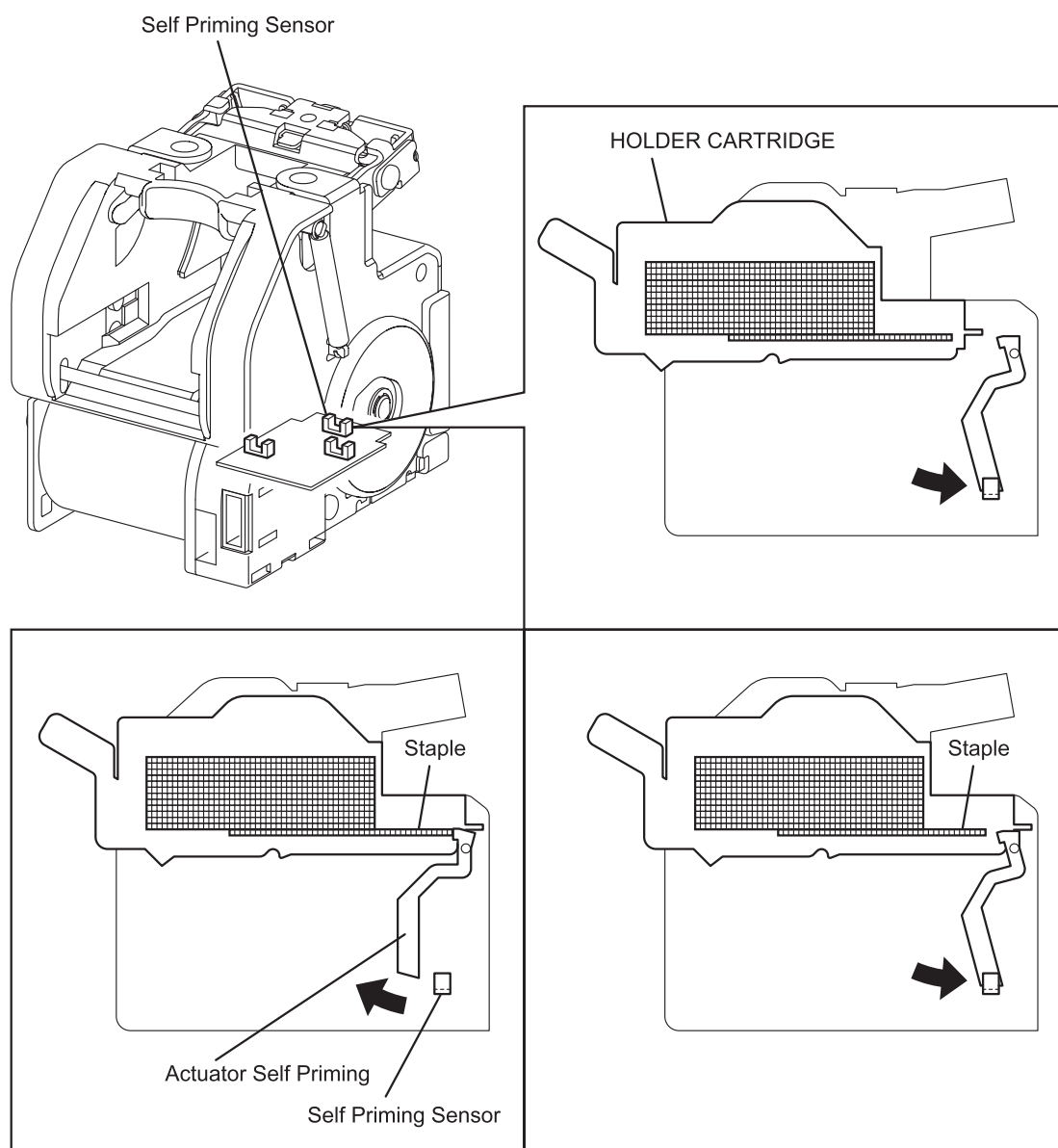
A photo-interrupter type sensor for detecting the remaining quantity of the staples. (Staples low: Sensor beam blocked)



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- Self Priming Sensor

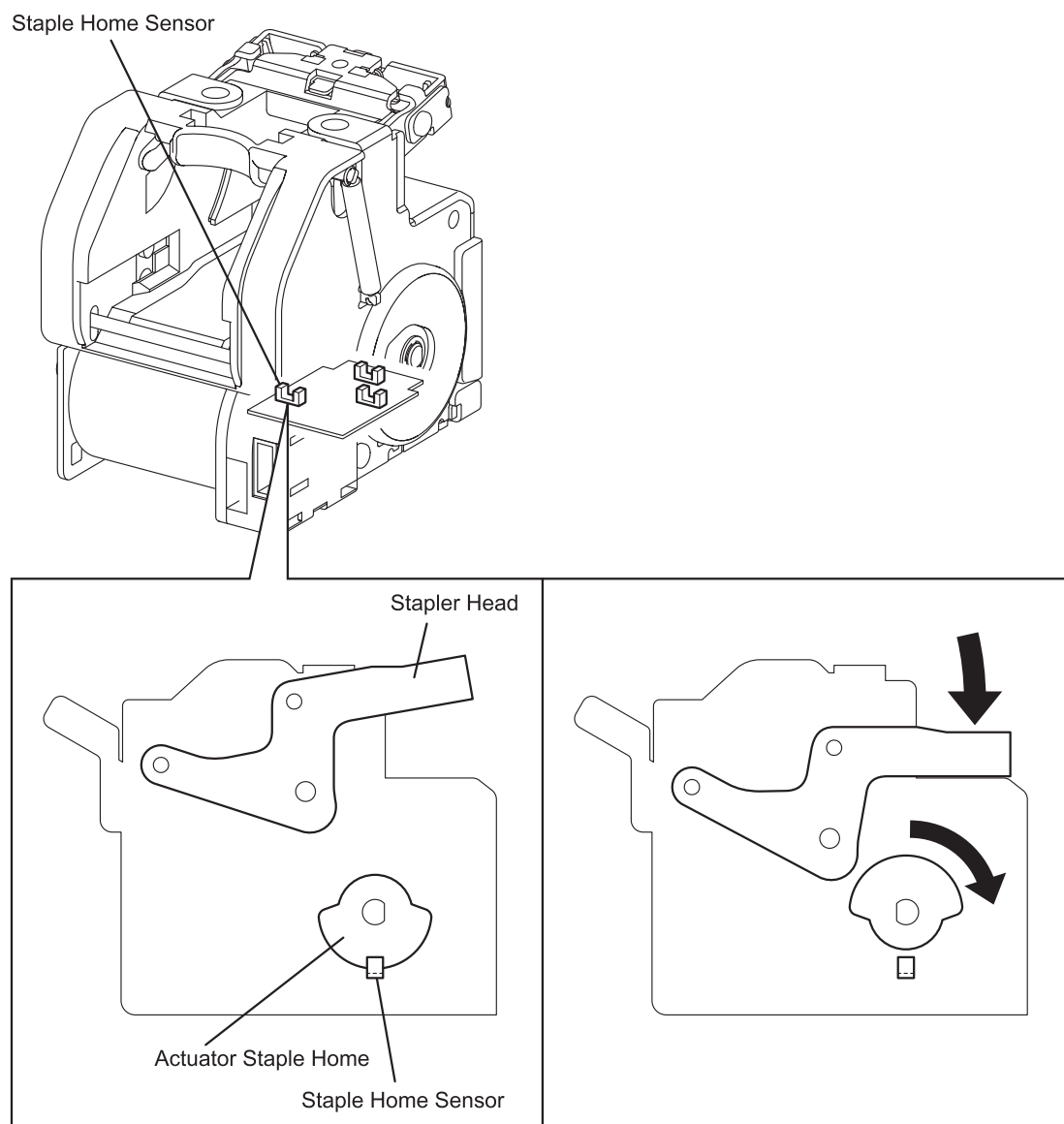
A photo-interrupter type sensor for detecting that the staple has reached the Stapler Head or that stapling has failed.



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### - Staple Home Sensor

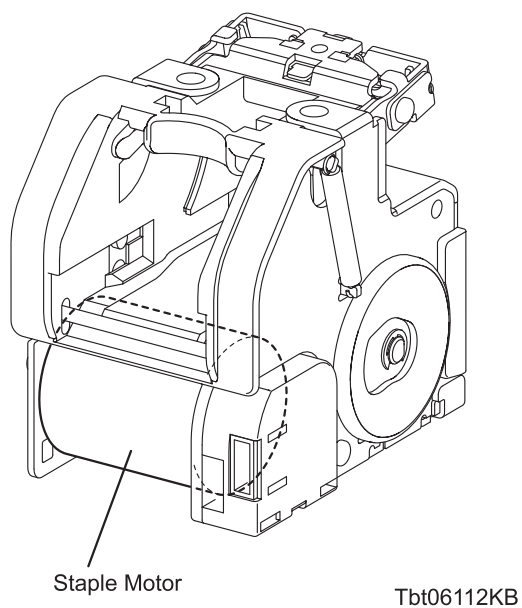
A photo-interrupter type sensor for detecting that the Stapler Head is at its home position or that stapling has failed. It also triggers the Staple Motor to stop. (Home position: Sensor beam blocked)



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- Staple Motor

A motor that drives the Stapler Head to execute stapling. Rotates clockwise to activate the Stapler Head, and counterclockwise to return it to its original position.





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### 3.4.2 Stapling

The sheets coming in from the X' port undergo tamping in the Compile Tray, and then are stapled in the position specified by the Printer. (Up to 50 sheets)

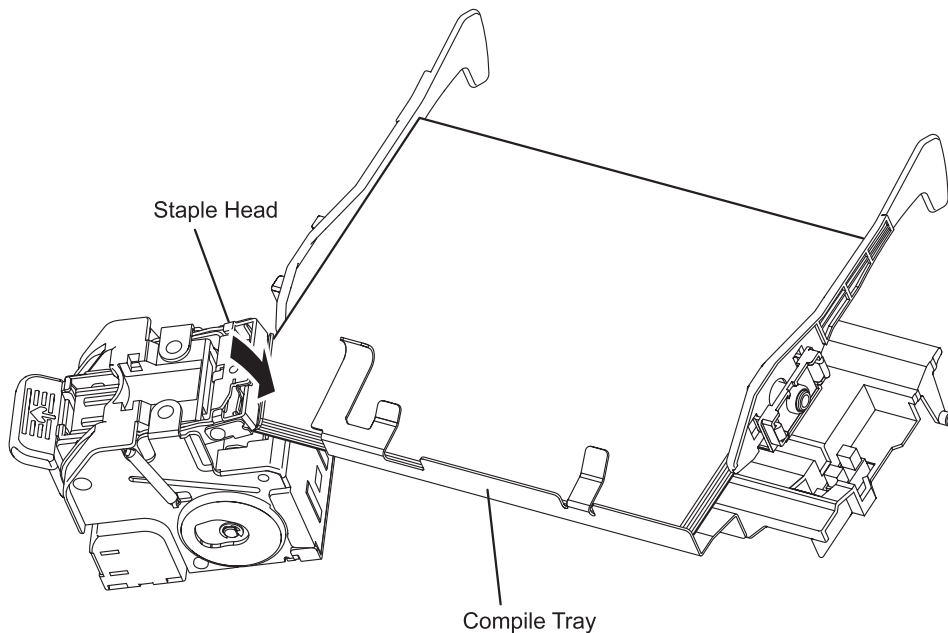
#### 3.4.2.1 Operation of Stapling

Stapling starts when the number of sheets deposited in the Compile Tray has reached the number of sheets for one set. (Up to 50 sheets)

Stapling is executed by the Stapler Head that comes down to the sheets.

When the Staple Motor rotates in the normal direction (clockwise), the Stapler Head applies a staple onto the sheets and then returns to its home position. If stapling is not completed correctly, the Staple Motor rotates in the reverse direction (counterclockwise) to drive the Stapler Head back to its home position.

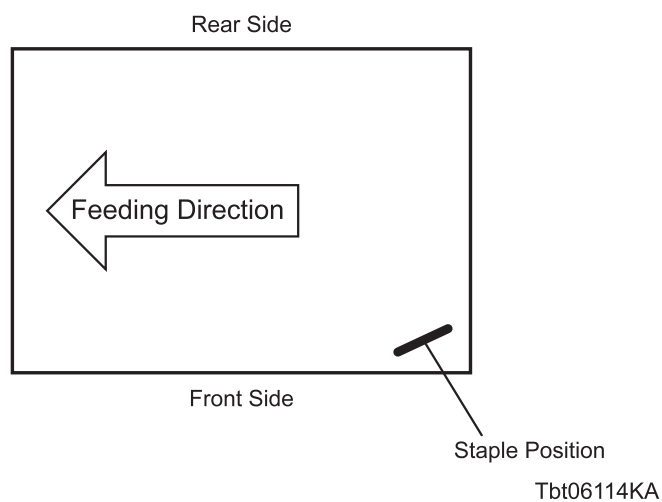
When staples are low, the Low Staple Sensor raises a warning message and suspends stapling. This warning message is also displayed when the Staple Cartridge is not installed.



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### 3.4.2.2 Stapling Position

The staple is applied in the front corner at an angle of 25 degrees after the sheets are aligned to the front edge by the GUIDE TAMPER REAR A4 (PL 14.8.5).



### 3.5 Stacker Tray

The Stacker Tray holds the sheets ejected from the Compile Tray by shifting to an appropriate position according to the height of the sheet stack.

#### 3.5.1 Major Components and Their Functions

- STACKER HEIGHT SENSOR (PL 14.4.3)

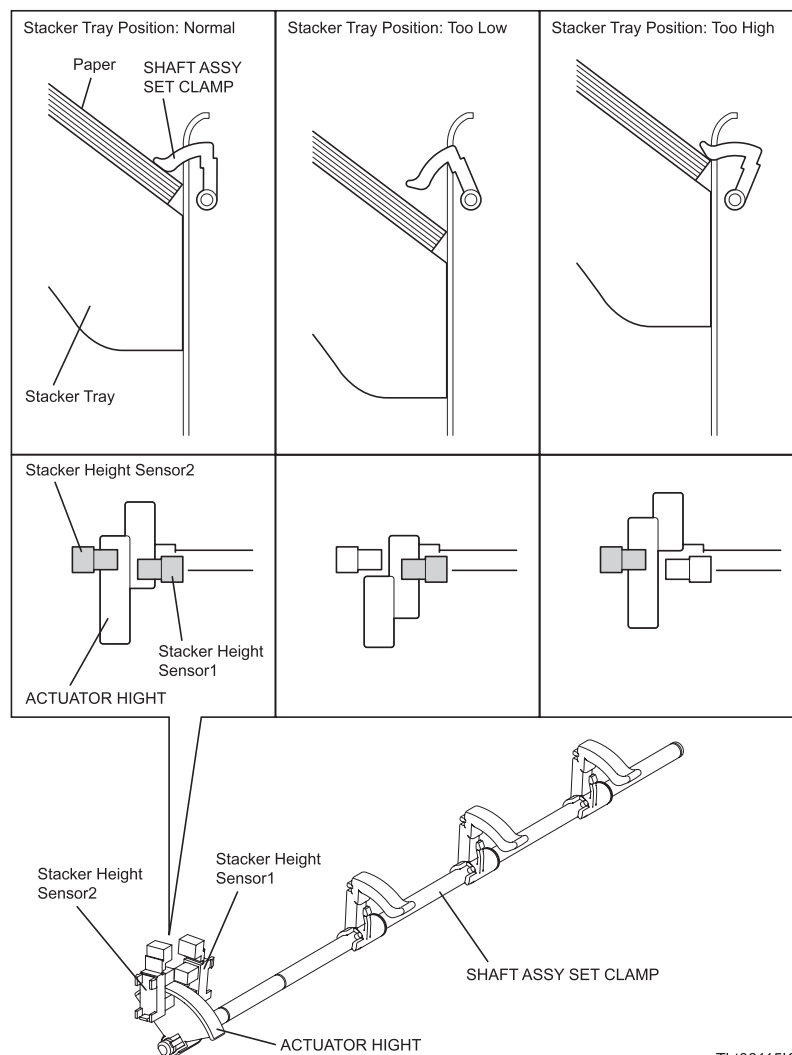
\* STACKER HEIGHT SENSOR 1/STACKER HEIGHT SENSOR 2

Detects the height of the sheet stack on the Stacker Tray based on the change of its actuator position.

The MOTOR ASSY STACKER (PL 14.9.7) moves up or down the Stacker Tray based on the detection results.

The following table shows the correspondence between the detection results and the moving direction of the Stacker Tray.

Sensor 1 Detection	Sensor 2 Detection	Stacker Tray Movement	Evaluation
Beam Blocked	Beam Received	Up	Too Low
Beam Blocked	Beam Blocked	As Is	Normal
Beam Received	Beam Blocked	Down	Too High



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- STACKER NO PAPER SENSOR (PL 14.9.10)

A sensor for detecting that the Stacker Tray is at the topmost position (home position). It also detects that the Stacker Tray has run out of paper.

(Home position: Sensor beam blocked)

- MOTOR ASSY STACKER (PL 14.4.7)

A motor that moves up or down the Stacker Tray.

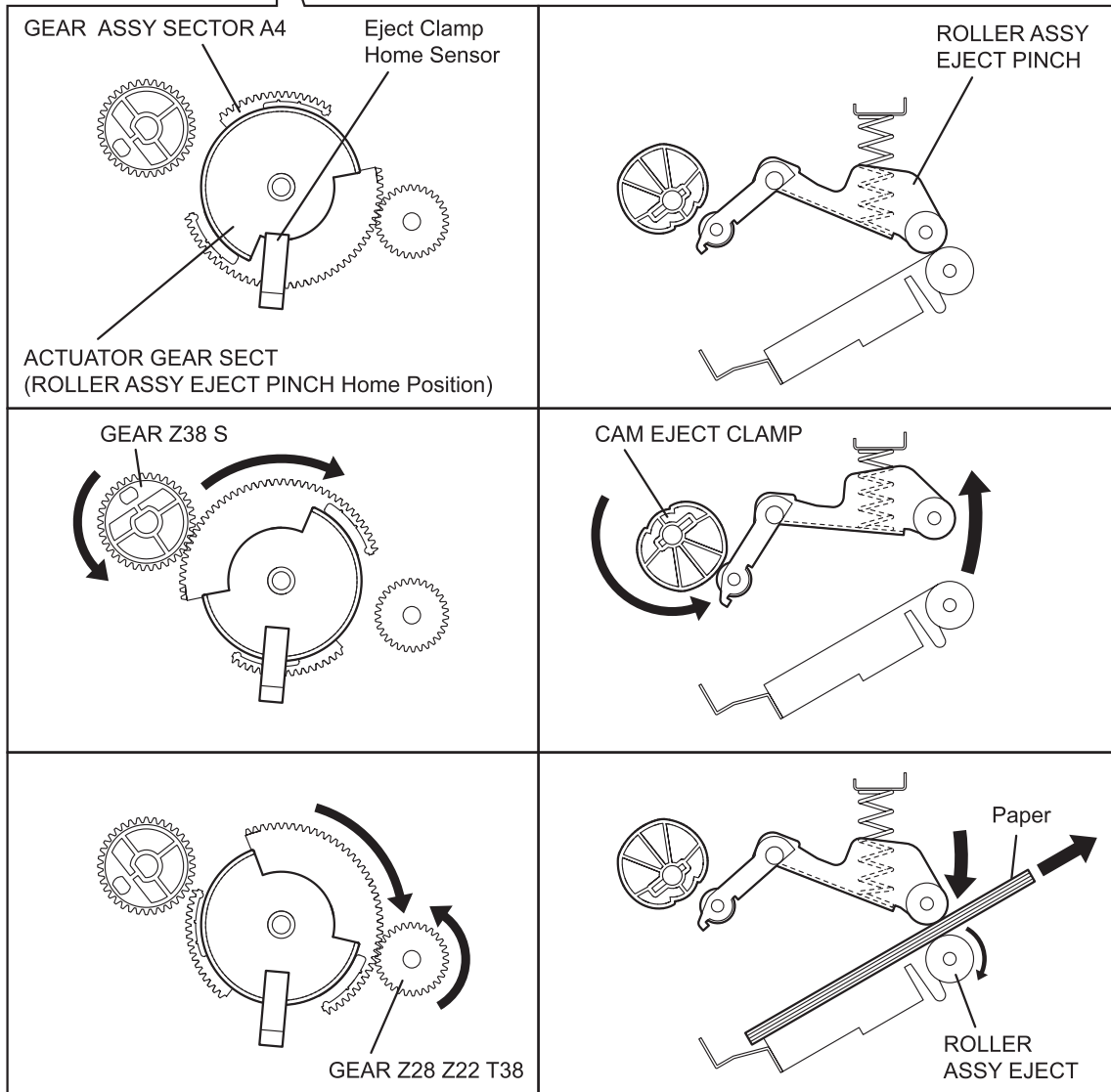
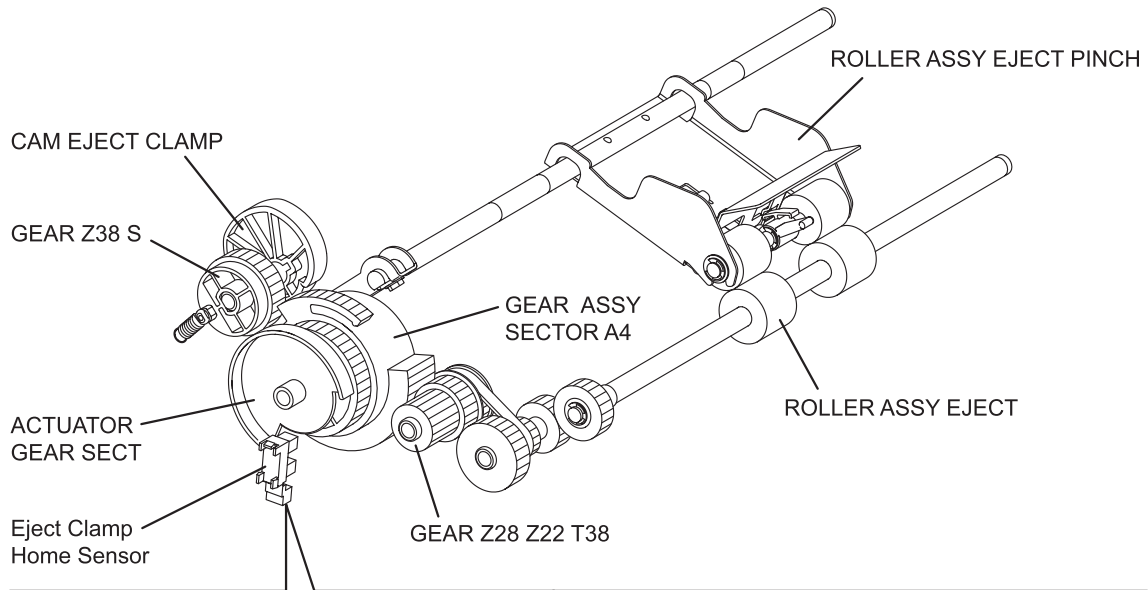
Rotates clockwise to raise and counterclockwise to lower the Stacker Tray.

- MOTOR ASSY EJECT (PL 14.5.6)

A stepping motor that drives sheet-ejecting components such as the EJECT CLAMP and the SET CLAMP.

- EJECT CLAMP HOME SENSOR (PL 14.4.3)

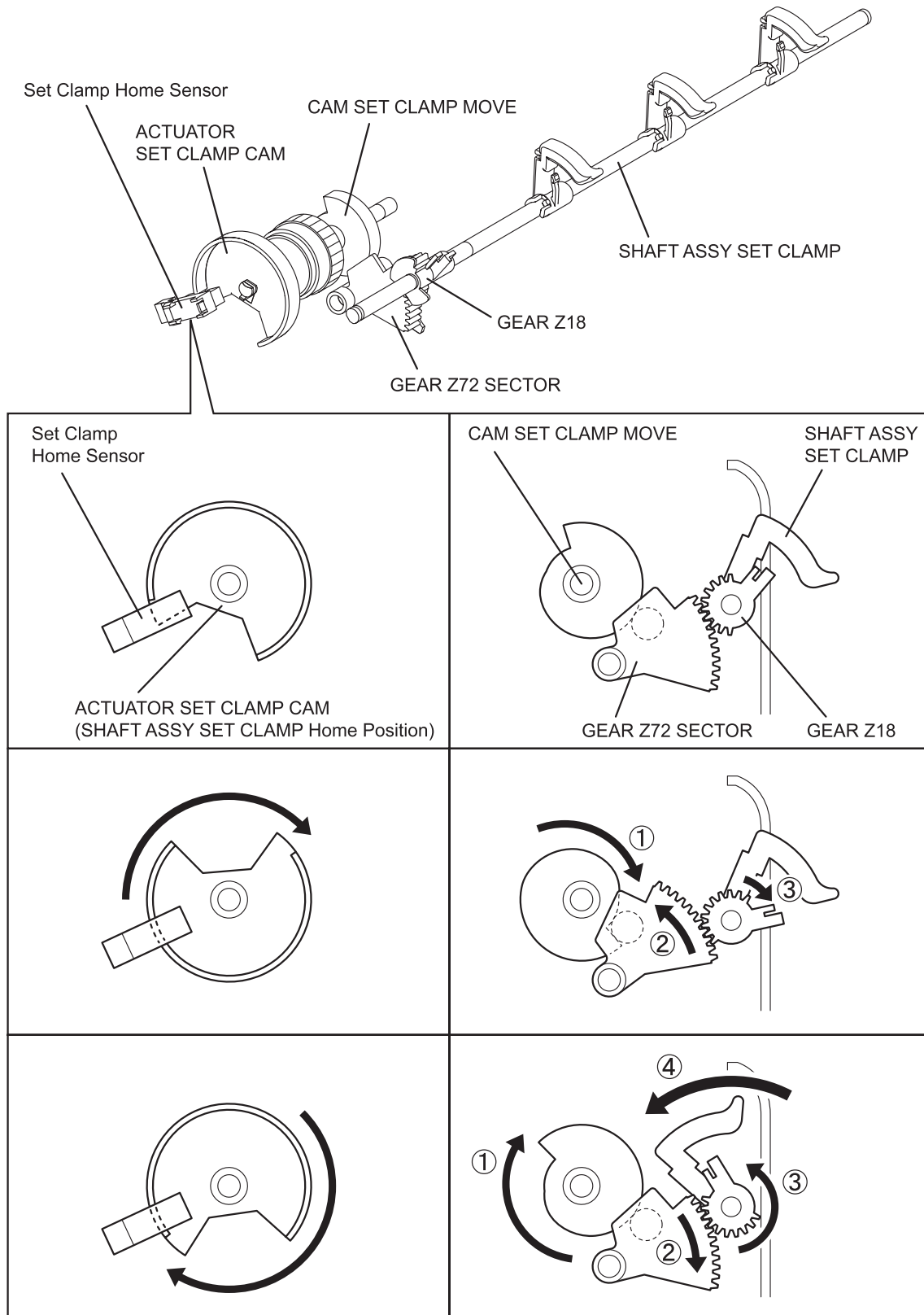
A sensor for detecting that the EJECT CLAMP (ROLLER ASSY EJECT PINCH: PL 14.6.13) is at its home position. (Home position: Sensor beam received)



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- SET CLAMP HOME SENSOR (PL 14.4.3)

A sensor for detecting that the SET CLAMP (SHAFT ASSY SET CLAMP: PL 14.6.32) is at its home position. (Home position: Sensor beam received)



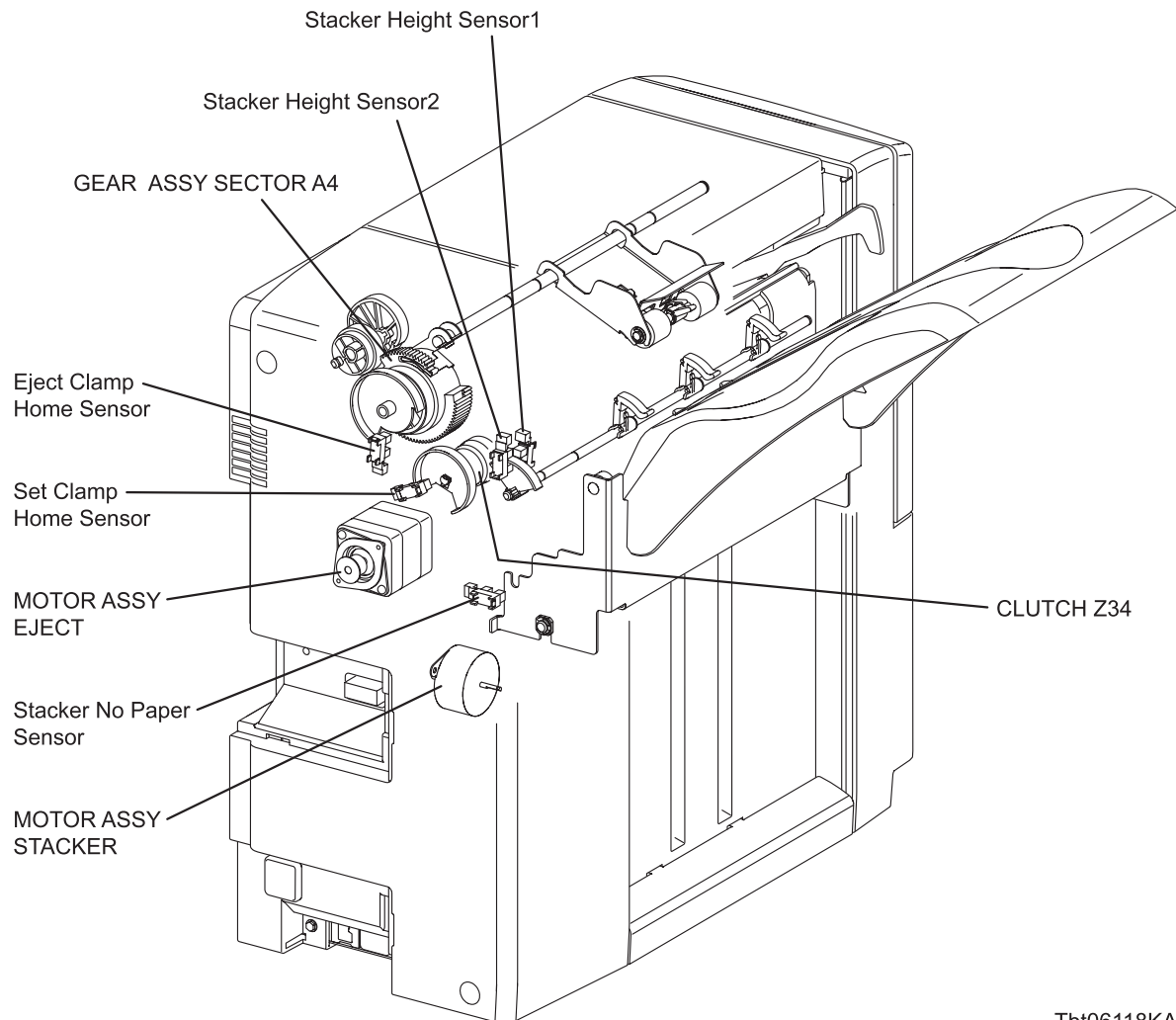
Tbt06117KA

- CLUTCH Z34 (PL 14.5.25)

A clutch that transmits the torque from the MOTOR ASSY EJECT to the SET CLAMP (SHAFT ASSY SET CLAMP: PL 14.6.32).

- GEAR ASSY SECTOR A4 (PL 14.5.18)

Controls the movement of the GUIDE PAPER 240 by changing the transmission route from the MOTOR ASSY EJECT. (Refer to 4. Torque Transmission Route.)



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## 3.6 Electrical

### 3.6.1 Major Components and Their Functions

- Switch

\* FINISHER FRONT DOOR SWITCH (PL 14.10.3)

Detects whether the Front Cover is open. Interrupts the DC power to the components in the Finisher (+24VDC) when the Front Door is opened.

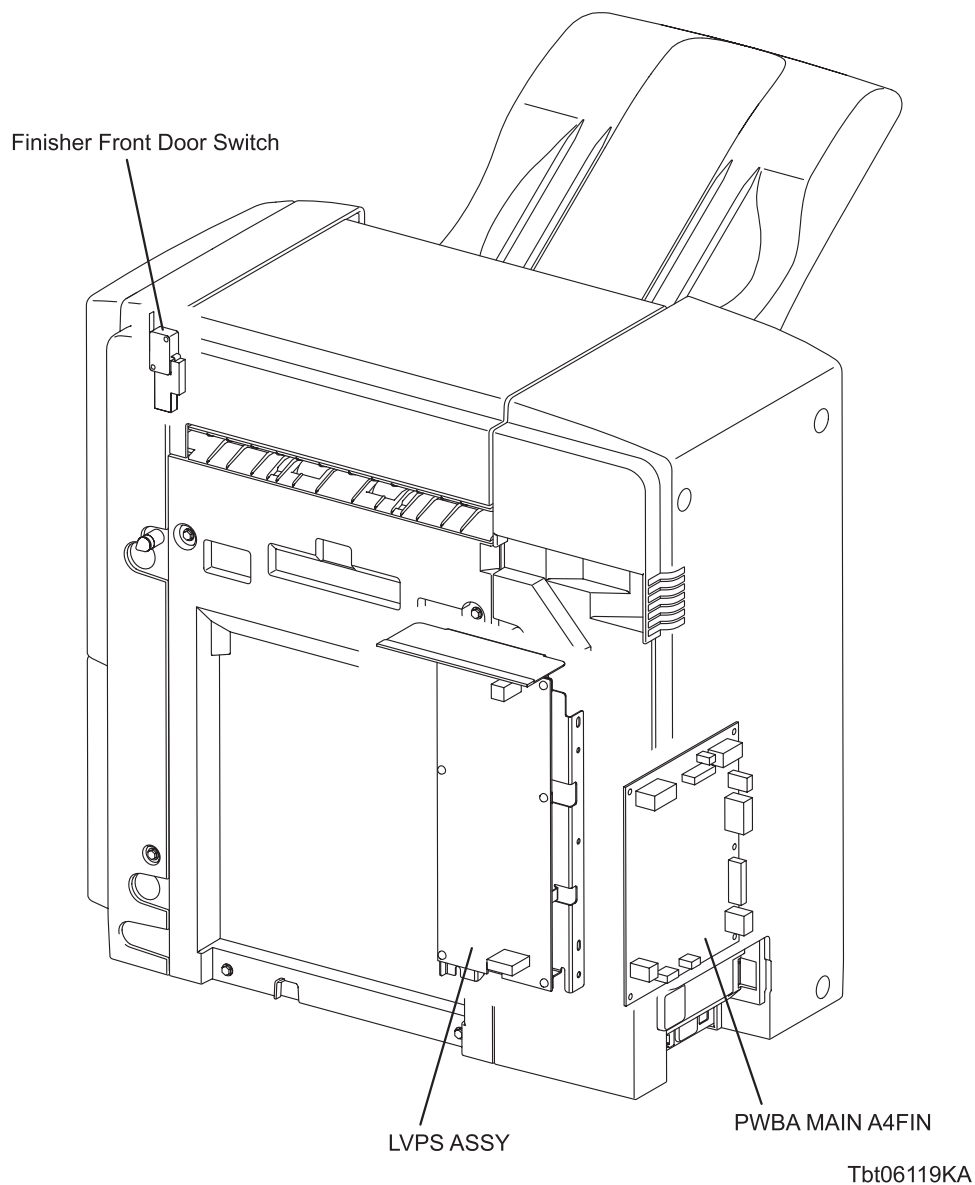
- PWBA

\* PWBA MAIN A4FIN (PL 14.4.12Åj

A board that controls the components in the Finisher.

\* LVPS ASSY (PL 14.10.10)

Converts the AC power from the Printer into stable low voltage DC power to be used for such components as logic circuits in the Finisher.

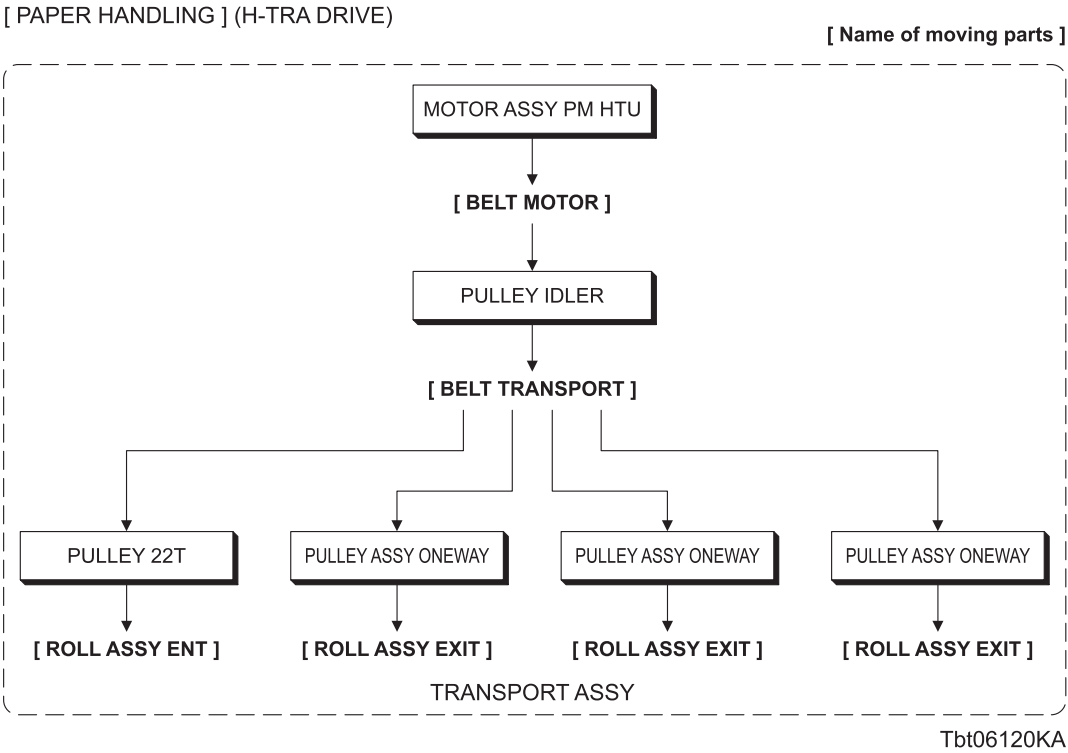


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4. Torque Transmission Route

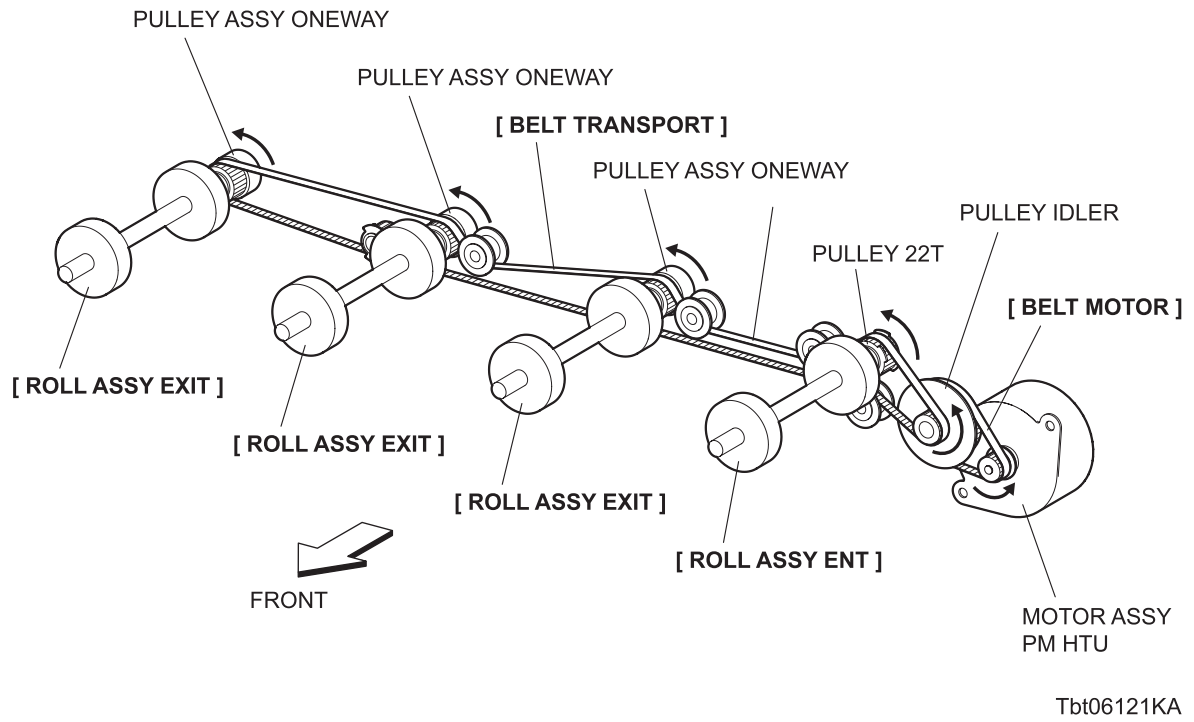
4.1 MOTOR ASSY PM HTU

The torque of the MOTOR ASSY PM HTU is transmitted through the route below.



[ PAPER HANDLING ] (H-TRA DRIVE)

[ Name of moving parts ]

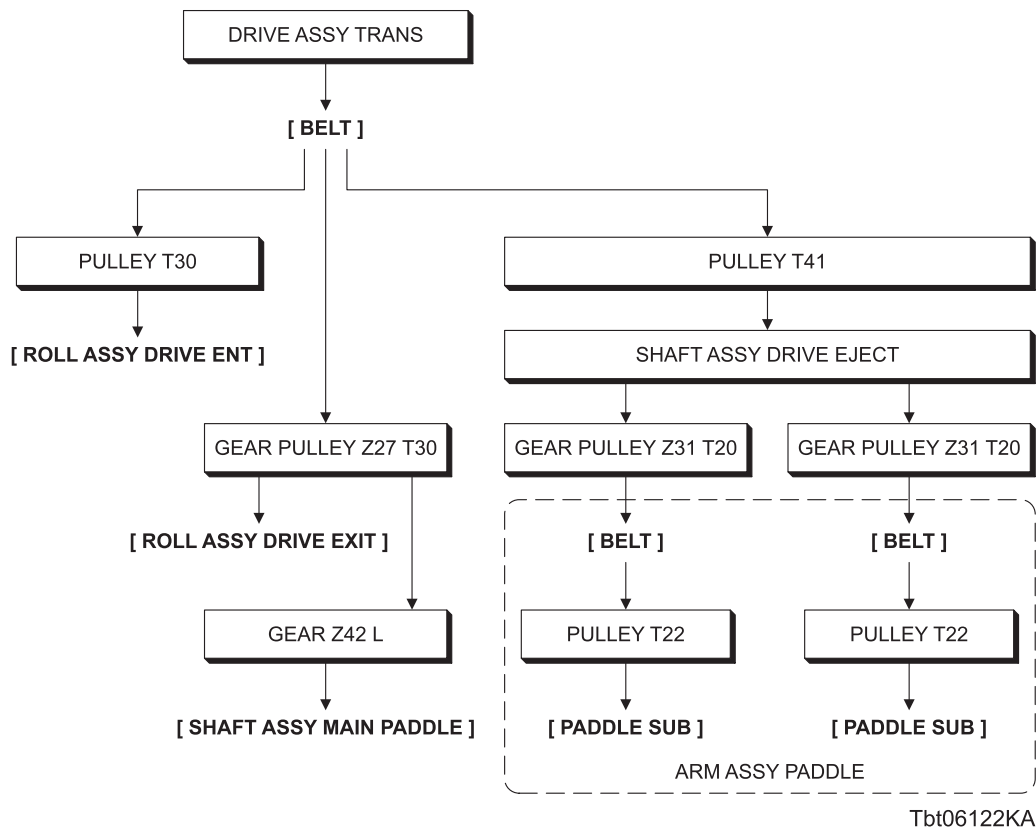


## 4.2 DRIVE ASSY TRANS

The torque of the DRIVE ASSY TRANS is transmitted through the route below.

[ PAPER HANDLING ] (X-port & PADDLE DRIVE)

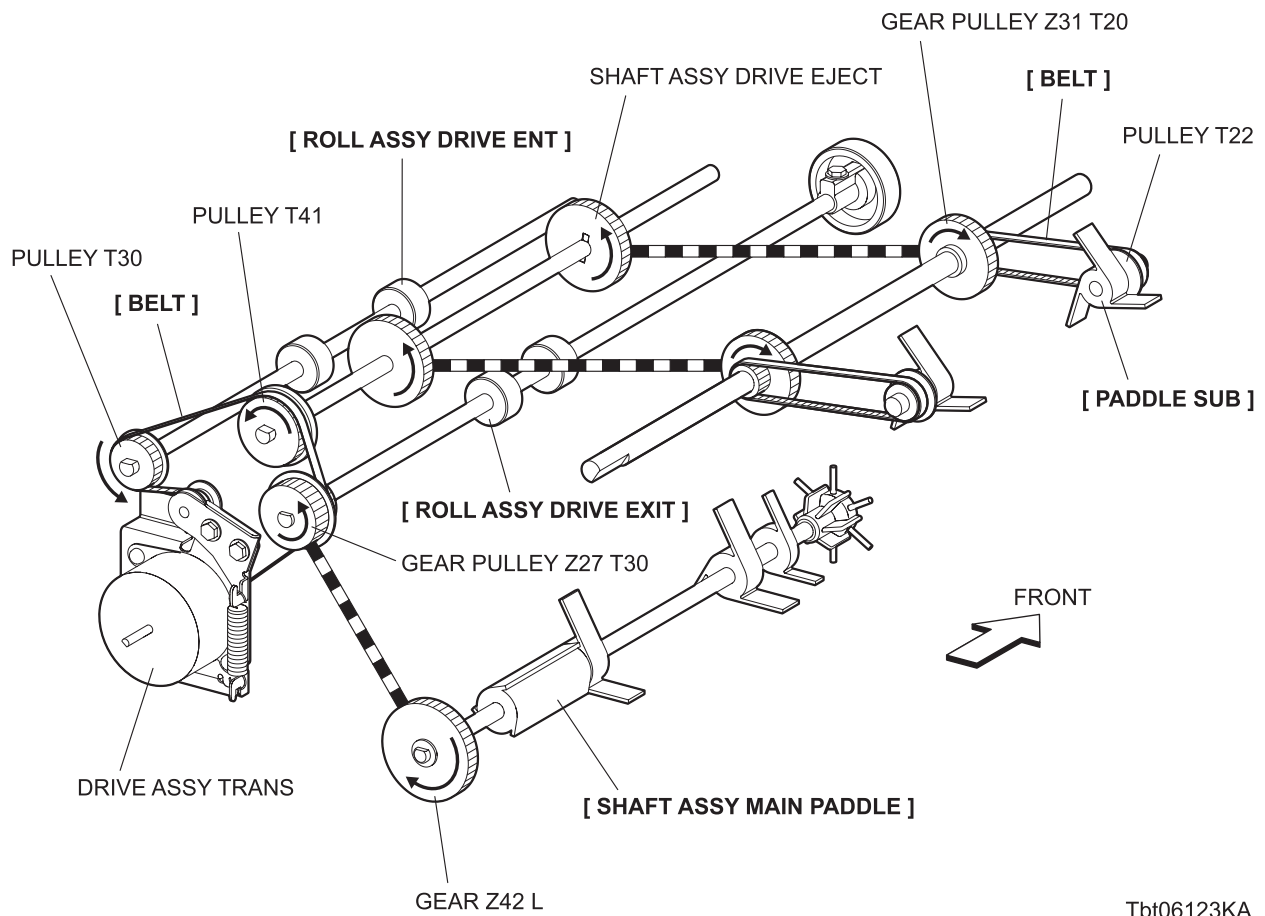
[ Name of moving parts ]



[ PAPER HANDLING ] (X-port & PADDLE DRIVE)

[ Name of moving parts ]

■ ■ ■ ■ ■ : Indicates the engagement of gears.



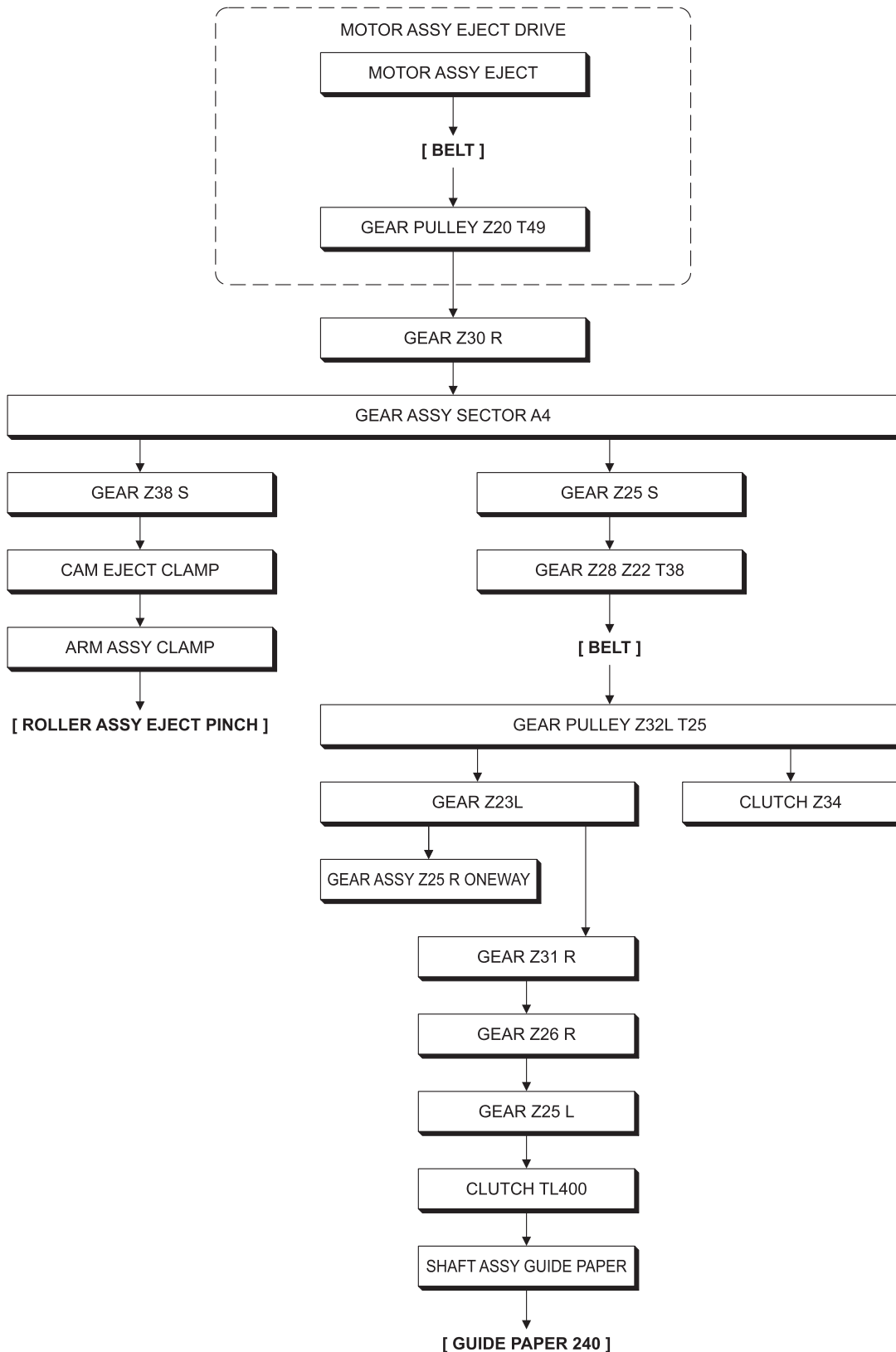
Tbt06123KA

### 4.3 MOTOR ASSY EJECT DRIVE

During sheet transfer from the X' port to the Compile Tray, the torque of the MOTOR ASSY EJECT DRIVE is transmitted through the route below.

[ PAPER EJECT DRIVE ] (From X-port)

[ Name of moving parts ]

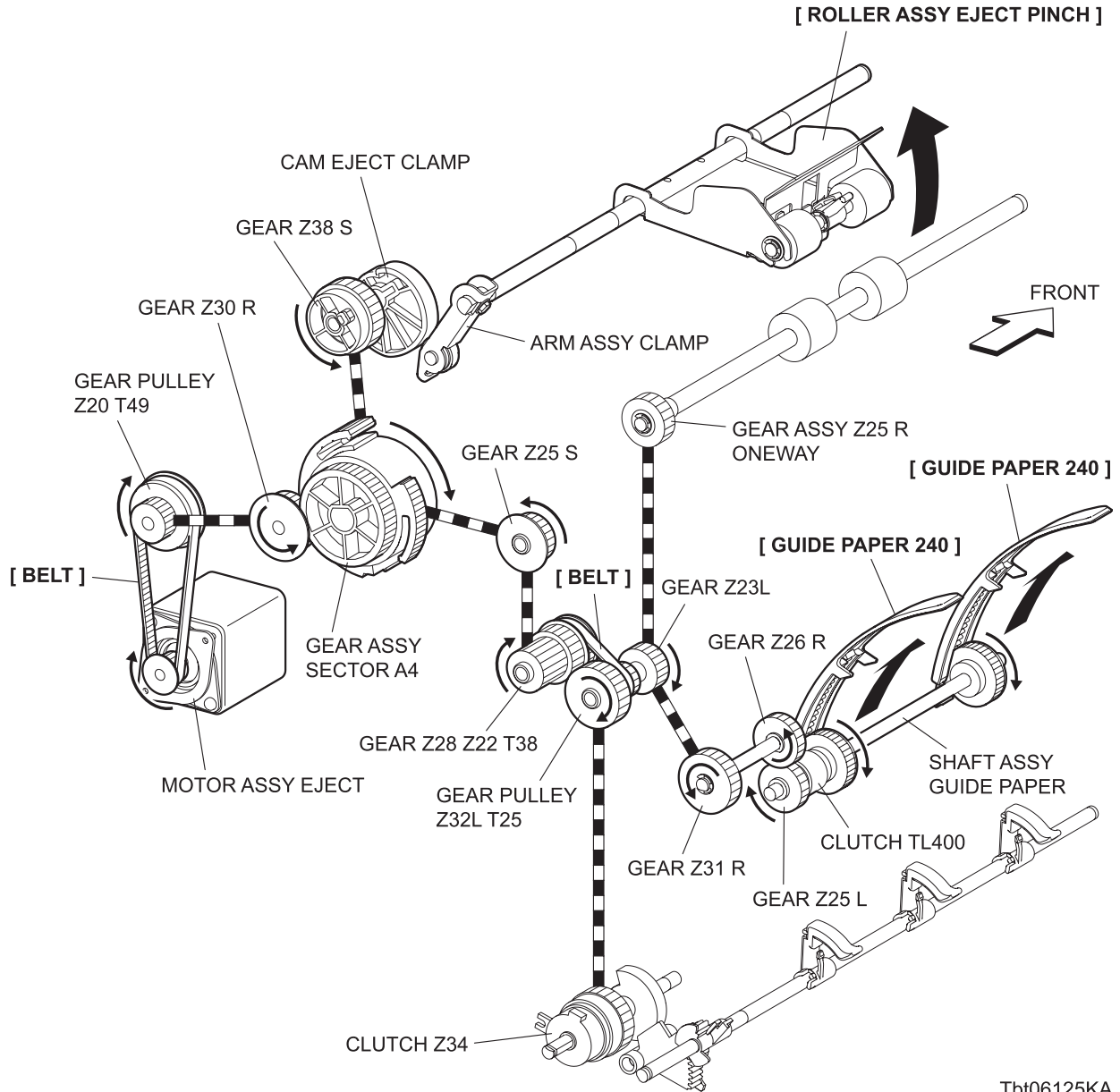


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[ PAPER EJECT DRIVE ] (From X-port)

[ Name of moving parts ]

▬ : Indicates the engagement of gears.



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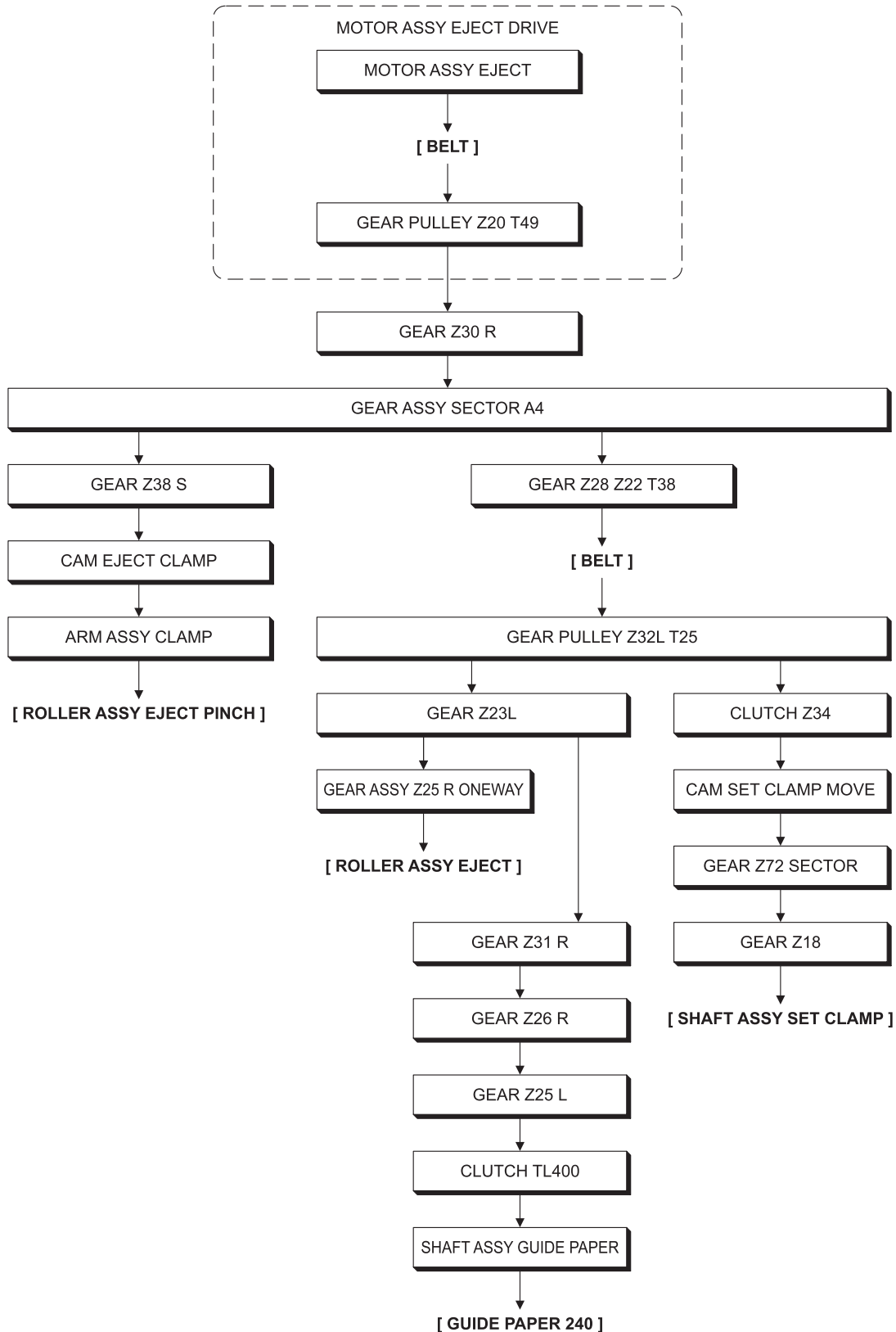


#### 4.4 MOTOR ASSY EJECT DRIVE

During sheet ejection from the Compile Tray to the Stacker Tray, the torque of the MOTOR ASSY EJECT DRIVE is transmitted through the route below.

[ PAPER EJECT DRIVE ] (To Stacker Tray)

[ Name of moving parts ]

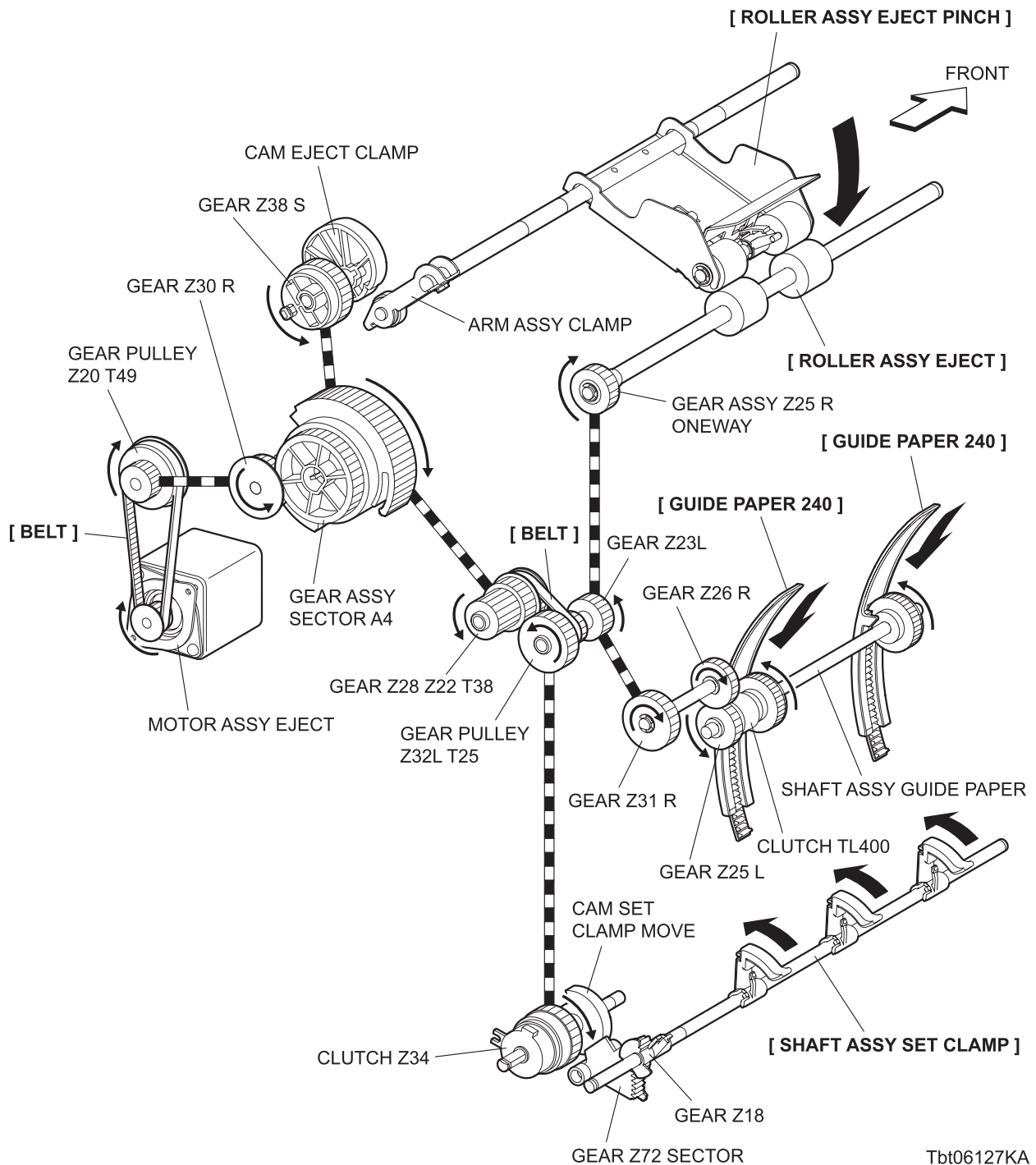


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[ PAPER EJECT DRIVE ] (To Stacker Tray)

[ Name of moving parts ]

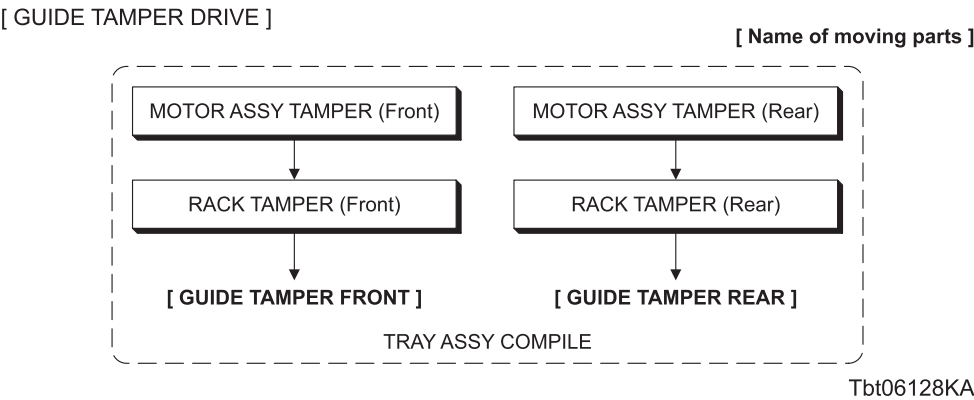
 : Indicates the engagement of gears.



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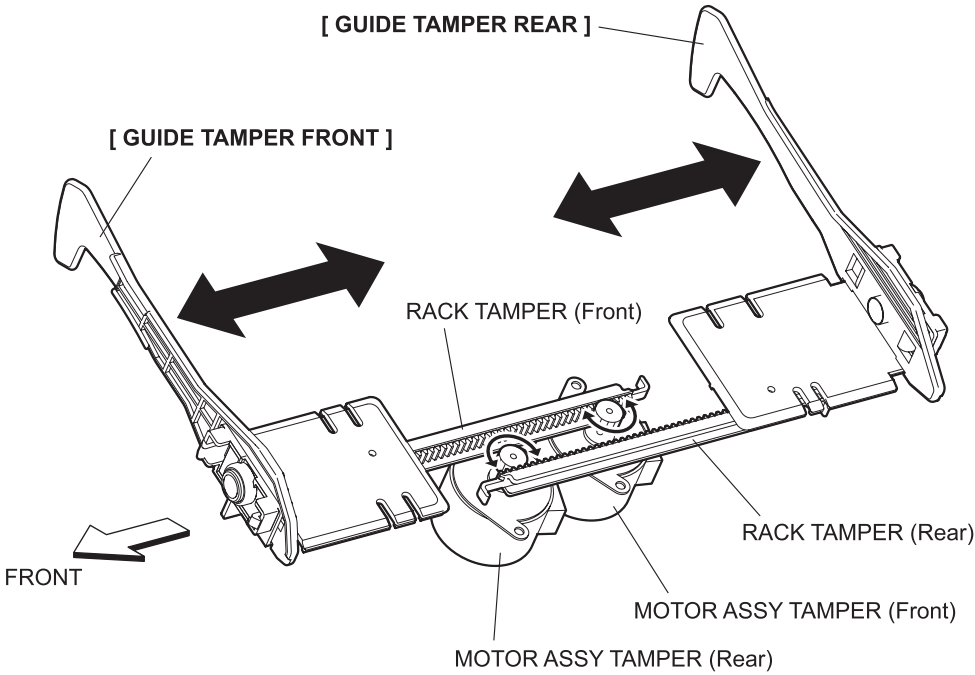
4.5 MOTOR ASSY TAMPER

The torque of the MOTOR ASSY TAMPER is transmitted through the route below.



[ GUIDE TAMPER DRIVE ]

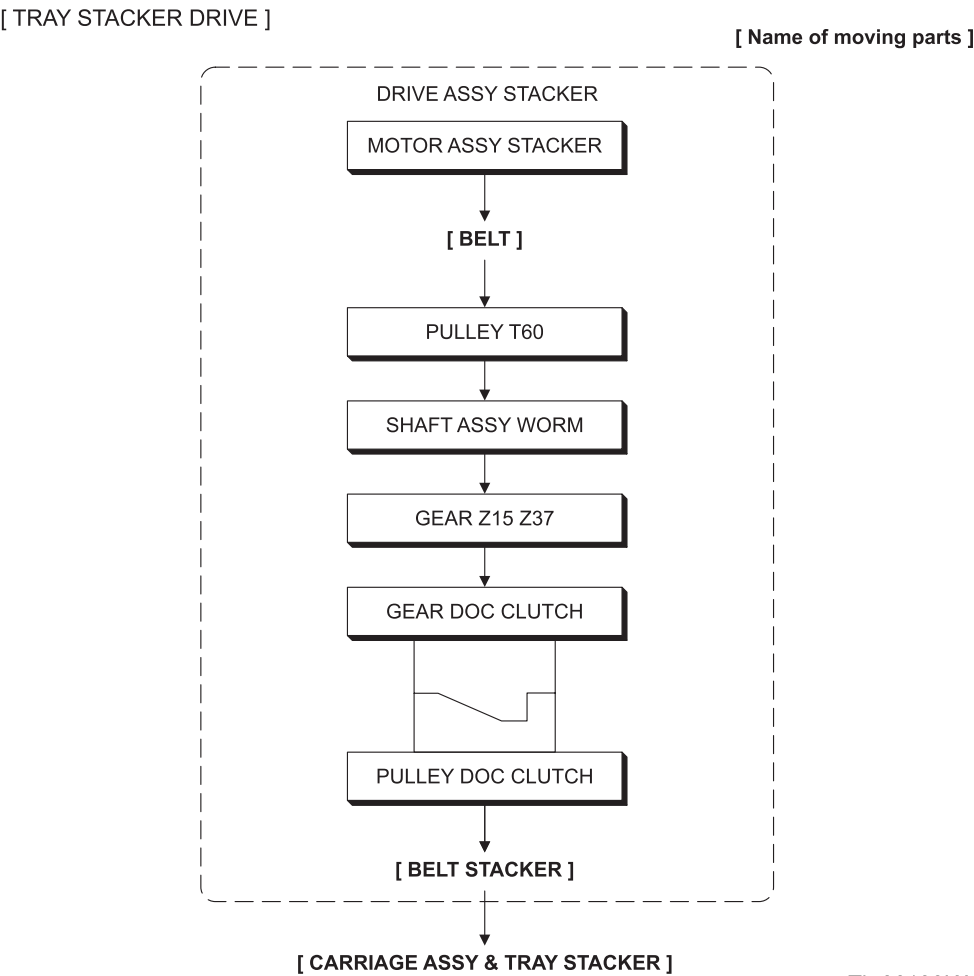
[ Name of moving parts ]



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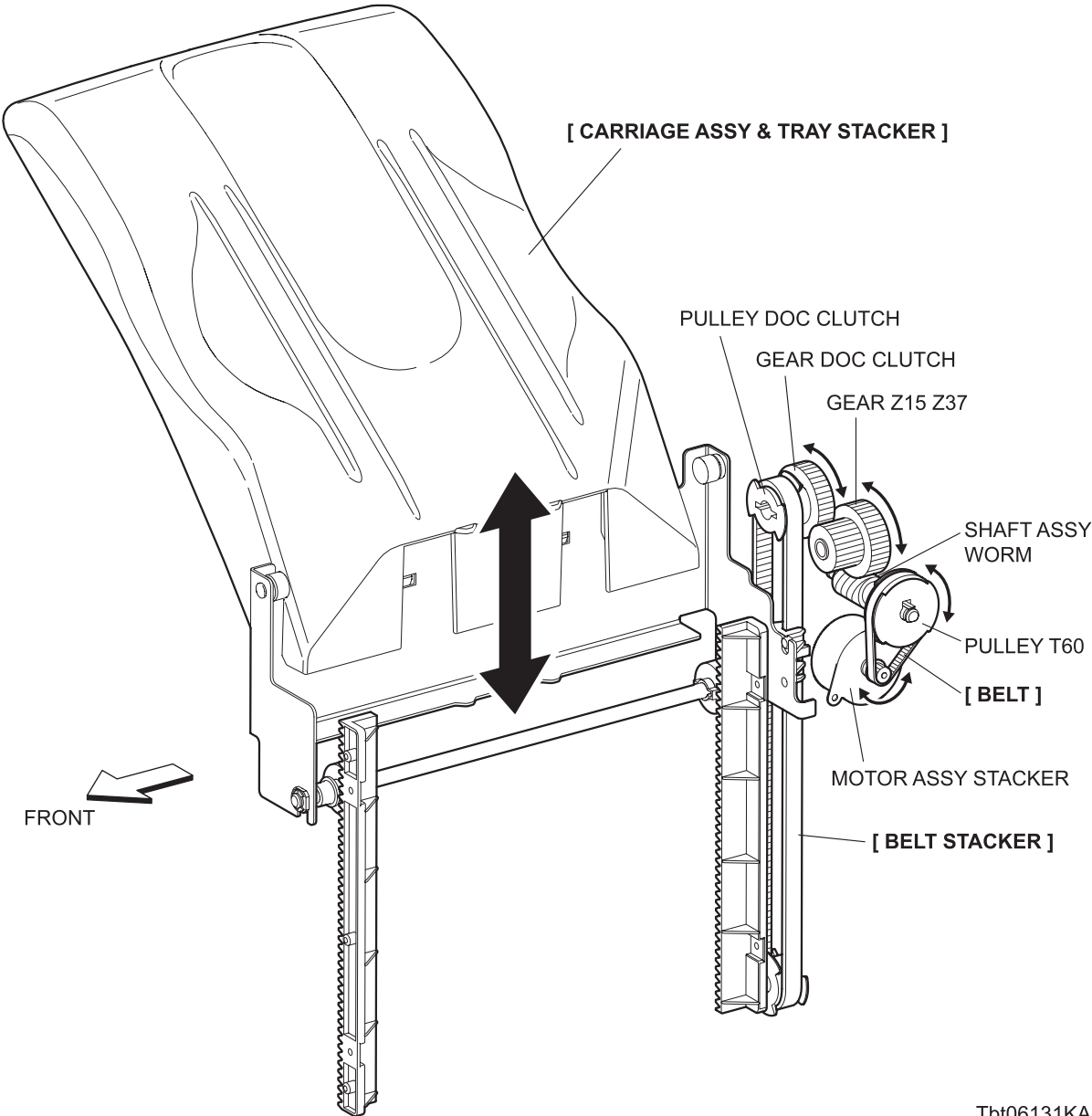
4.6 DRIVE ASSY STACKER

The torque of the DRIVE ASSY STACKER is transmitted through the route below.



[ TRAY STACKER DRIVE ]

[ Name of moving parts ]



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## Chapter 7 Wiring Diagrams and Signal Information CONTENTS






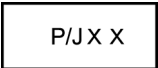
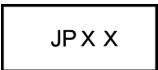
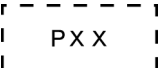
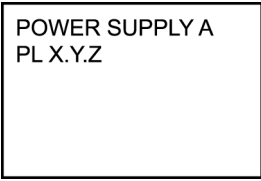
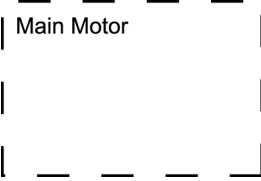



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# 1. Connection Wiring Diagram

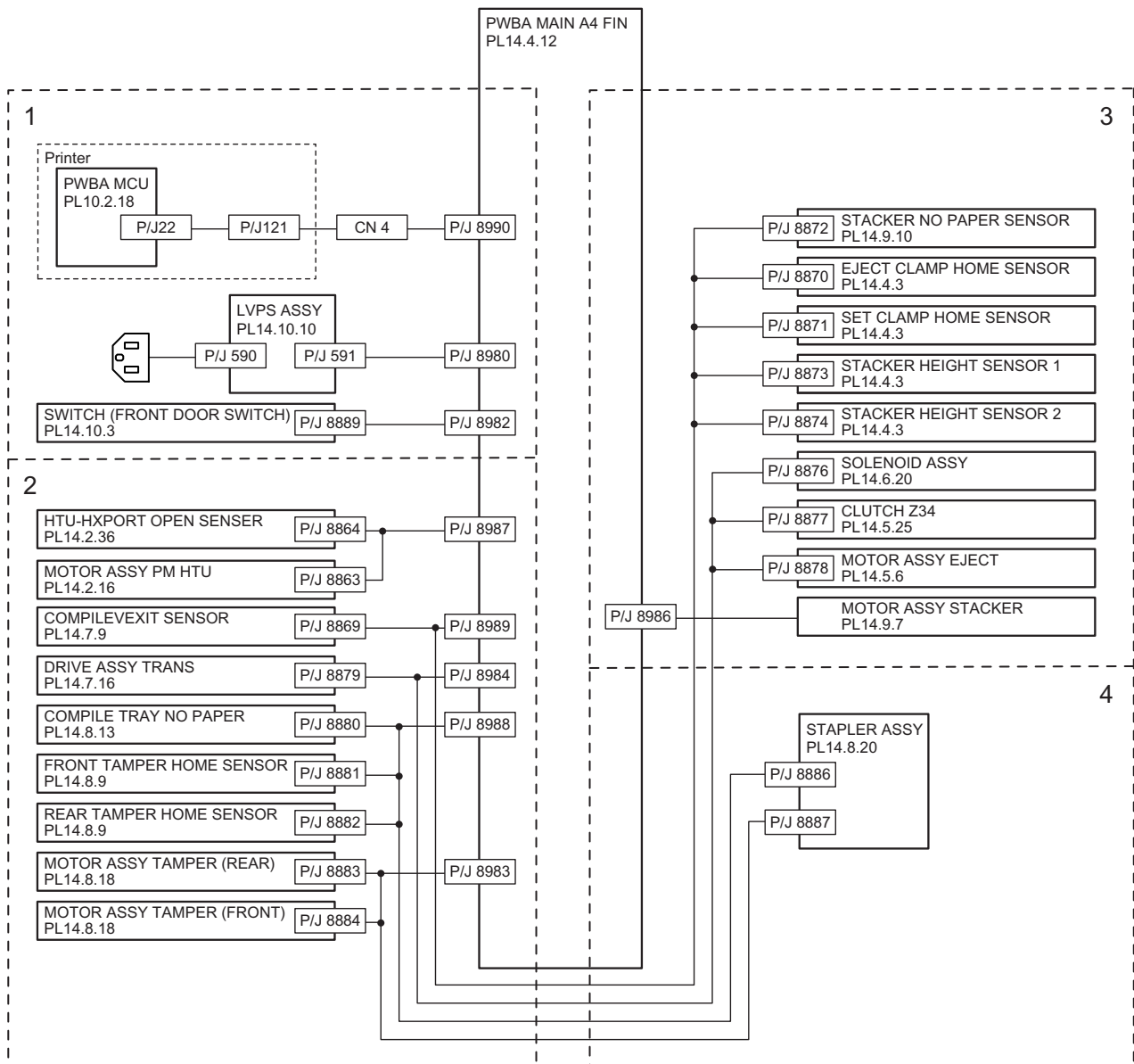
## 1.1 Symbols in the General Connection Wiring Diagram

The symbols in the general connection wiring diagram are described below.

Symbol	Description
	Represents an interconnection between parts using wiring harness or wire.
	Represents an interconnection which differs according to the specifications.
	Represents an interconnection between parts using a conductive member such as a plate spring.
	Represents a connection between parts by tightening of a screw.
	Indicates a frame ground.
	Represents a connector. The connector No. is indicated inside the box.
	Represents a connection terminal with a plate spring on the printed circuit board. The connector (terminal) No. is indicated inside the box.
	Represents a connector directly connected to the printed circuit board. The connector No. is indicated inside the box.
	The box containing a part name represents a part. "PL X.Y.Z" indicates the item "Z" of the plate (PL) "X.Y" described in Chapter 5 "Parts List."
	Represents a functional part within a part, and indicates the name of the functional part.
	Represents a section in "2. Interconnection Wiring Diagram of Parts," and indicates its section No.
	Represents a screw for fixing wiring harness and a conductive member such as a plate spring.
	Represents a conductive member such as a plate spring.



## 1.2 General Wiring Diagram

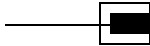
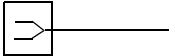
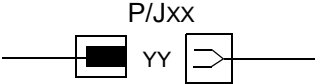
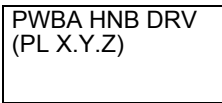
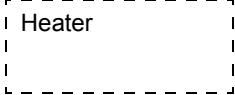
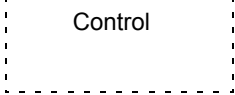
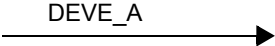
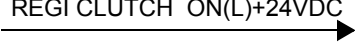
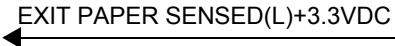


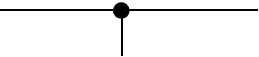
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## 2. Interconnection Wiring Diagram of Parts

### 2.1 Notes on Using the Wiring Diagram between Parts

The following describes the legend of the wiring diagrams between parts shown on the following pages.

Symbols	Description
	Denotes a plug.
	Denotes a jack.
	Denotes Pin yy and Jack yy of the connector Pxx and Jxx.
	Denotes the parts. PL X.Y.Z implies the item "Z" of plate (PL) "X.Y" in Chapter 5. Parts List.
	Denotes functional parts attached with functional parts name.
	Denotes the control and its outline in PWB.
	Denotes a connection between parts with harnesses or wires, attached with signal name/contents.
	Denotes the function, and logic value of the signal to operate the function (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.
	Denotes the function, and logic value of the signal when the function operated (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.

Symbols	Description
	Denotes a connection between wires.
I/L +24VDC	Denotes DC voltage when the interlock switch in HNB MCU WITH CPU turns on.
+5VDC +3.3VDC	Denotes DC voltage.
SG	Denotes signal ground.
AG	Denotes analog ground.
RTN	Denotes the return.

## 2.2 Configuration of the Interconnection Wiring Diagram of Parts

The interconnection wiring diagram is divided into 4 sections.

§ 1 to § 4 indicate details of the interconnections of parts.

### § 1 DC POWER SUPPLY & SWITCH

Connections of Printer with PWBA MAIN A4 FIN.

Connections of LVPS ASSY with PWBA MAIN A4 FIN.

Connections of SWITCH with PWBA MAIN A4 FIN.

### § 2 H-TRANSPORT, X' PORT & COMPILER

Connections of HTU-HXPORT OPEN SENSOR with PWBA MAIN A4 FIN.

Connections of MOTOR ASSY PM HTU with PWBA MAIN A4 FIN.

Connections of COMPILE EXIT SENSOR with PWBA MAIN A4 FIN.

Connections of DRIVE ASSY TRANS with PWBA MAIN A4 FIN.

Connections of COMPILE TRAY NO PAPER SENSOR with PWBA MAIN A4 FIN.

Connections of FRONT TAMPER HOME SENSOR with PWBA MAIN A4 FIN.

Connections of REAR TAMPER HOME SENSOR with PWBA MAIN A4 FIN.

Connections of MOTOR ASSY TAMPER (REAR) with PWBA MAIN A4 FIN.

Connections of MOTOR ASSY TAMPER (FRONT) with PWBA MAIN A4 FIN.

### § 3 STACKER

Connections of STACKER NO PAPER SENSOR with PWBA MAIN A4 FIN.

Connections of EJECT CLAMP HOME SENSOR with PWBA MAIN A4 FIN.

Connections of SET CLAMP HOME SENSOR with PWBA MAIN A4 FIN.

Connections of STACKER HEIGHT SENSOR 1 with PWBA MAIN A4 FIN.

Connections of STACKER HEIGHT SENSOR 2 with PWBA MAIN A4 FIN.

Connections of SOLENOID ASSY with PWBA MAIN A4 FIN.

Connections of CLUTCH Z34 with PWBA MAIN A4 FIN.

Connections of MOTOR ASSY EJECT with PWBA MAIN A4 FIN.

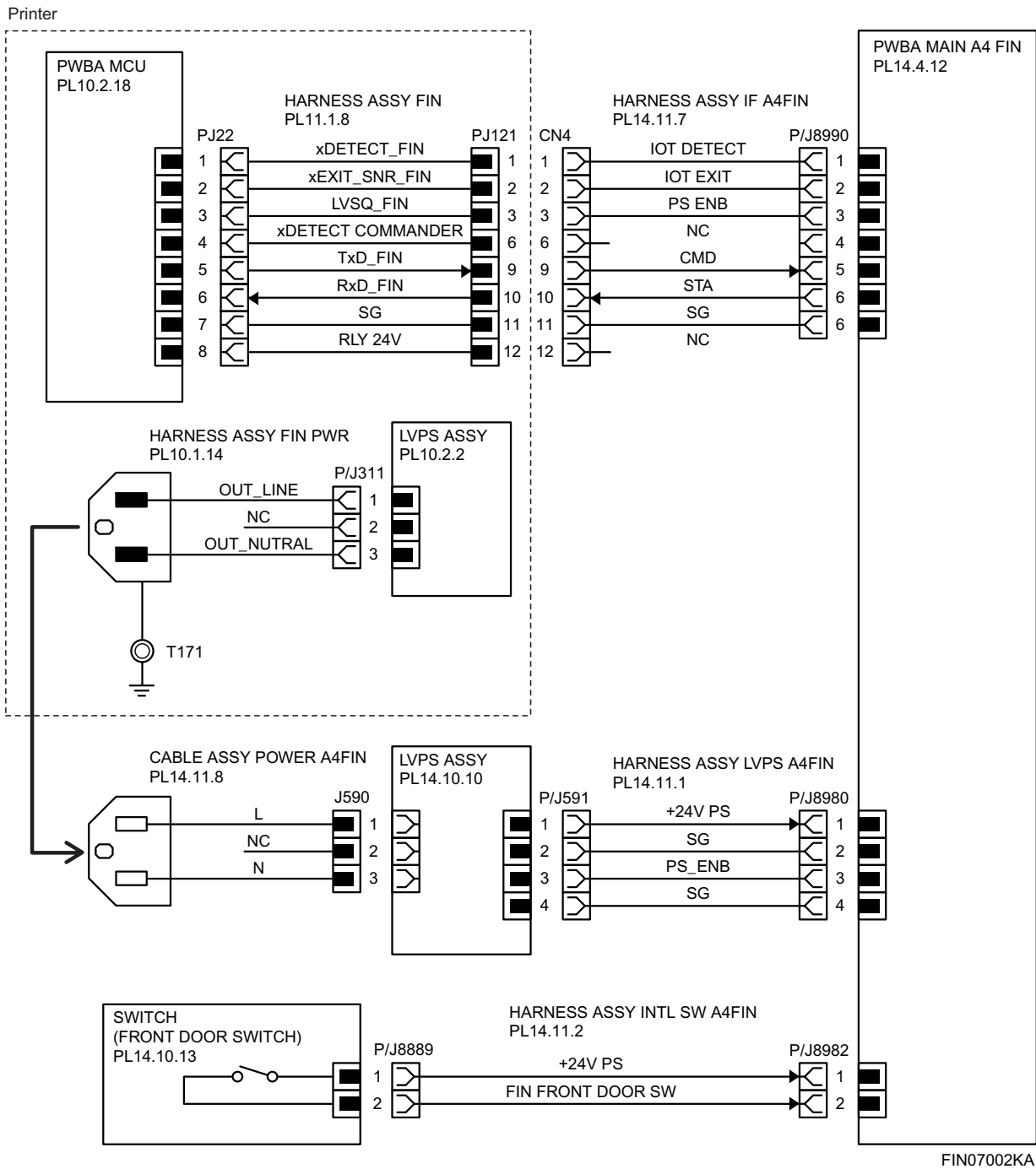
Connections of MOTOR ASSY STACKER with PWBA MAIN A4 FIN.

### § 4 STAPLER

Connections of STAPLER ASSY with PWBA MAIN A4 FIN.

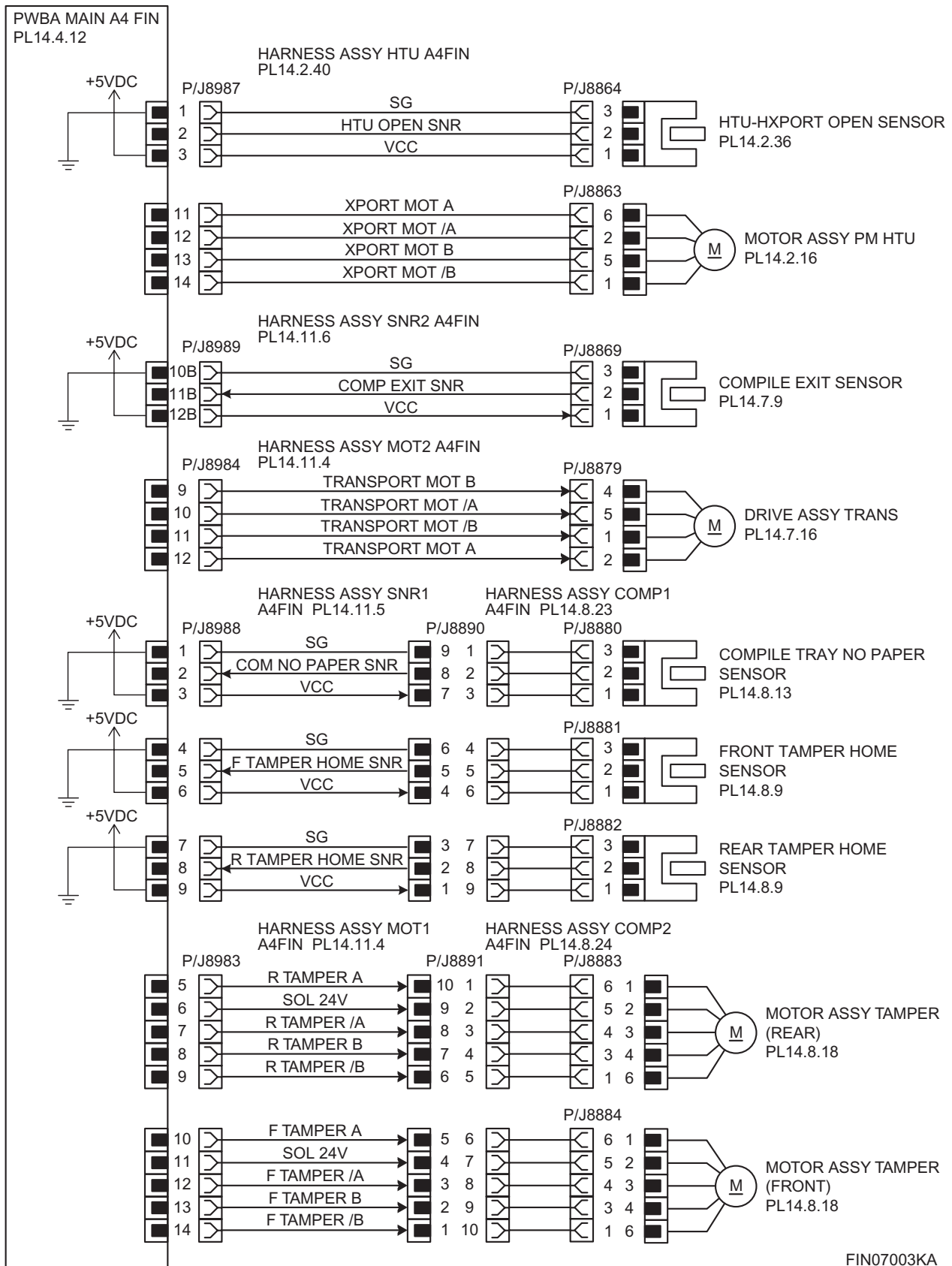
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# § 1 DC POWER SUPPLY & SWITCH



Signal line name	Description
xDETECT_FIN xEXIT_SNR_FIN LVSQ_FIN xDETECT COMMANDER TxD FIN RxD FIN	Communication signal of PWB A MCU (Engine) and PWB MAIN A4 FIN(Finisher)
PS_ENB	Control signal of the LVPS
FIN FRONT DOOR SW	Control signal of the Switch(Front Door)

## § 2 H-TRANSPORT, X' PORT & COMPILER TRAY

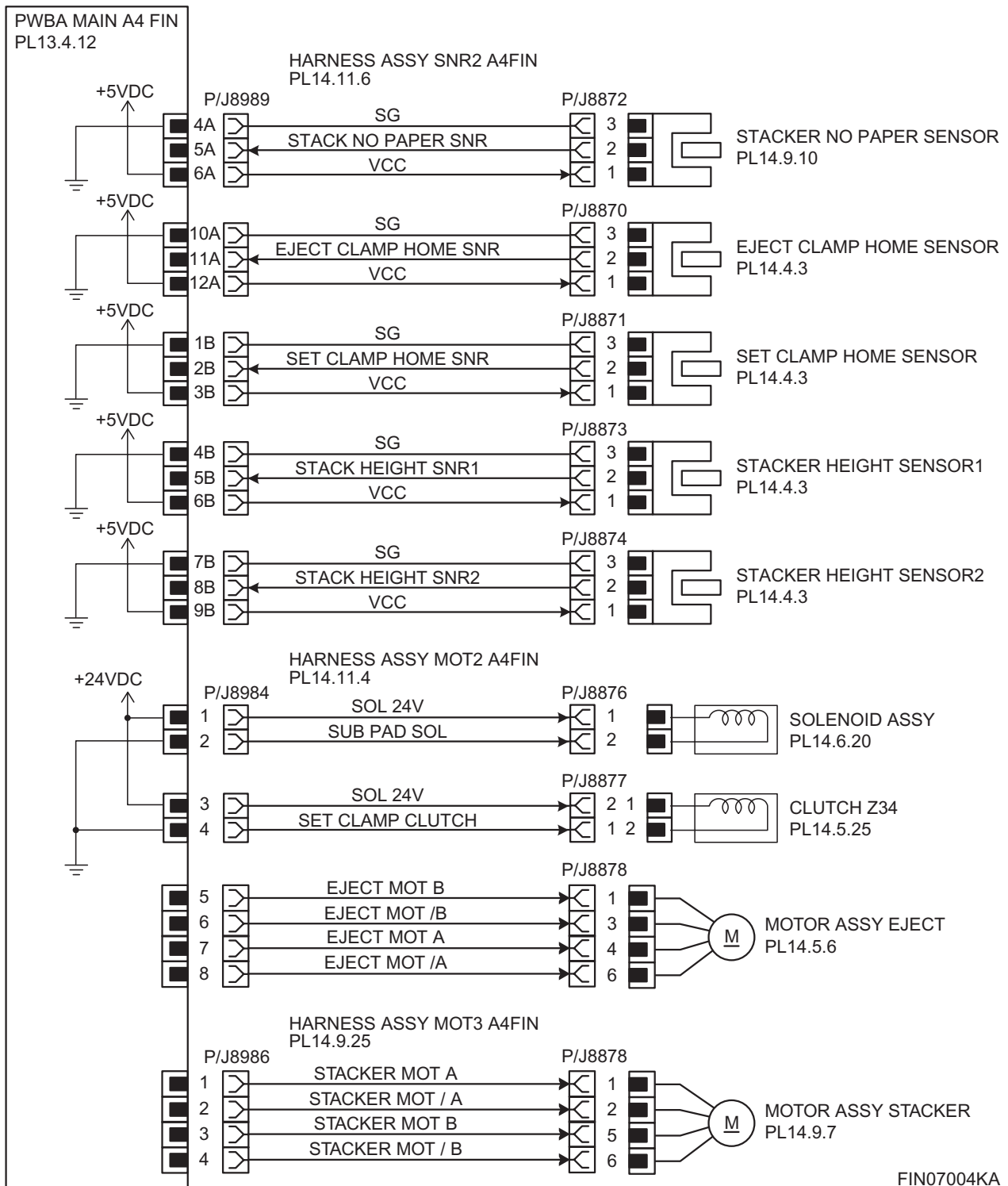


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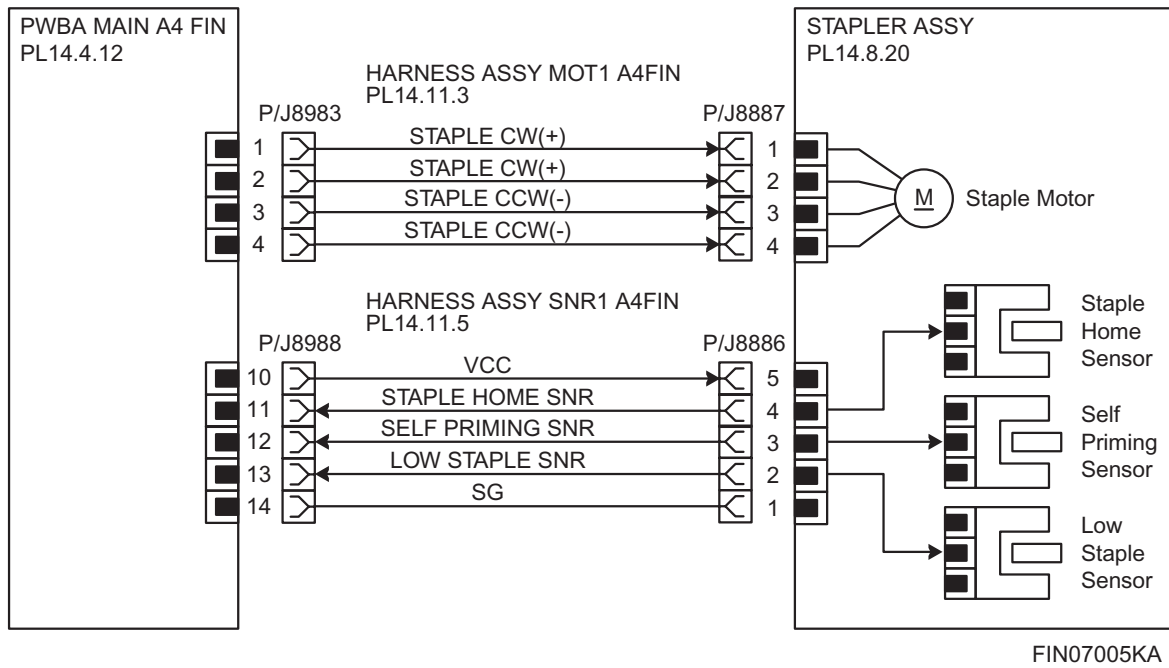
Signal line name	Description
HTU OPEN SNR	Opening/closing detection signal of "COVER TOP H-TRA"
XPORT MOT A XPORT MOT /A XPORT MOT B XPORT MOT /B	Drive control signal of the MOTOR ASSY PM HTU.
COMP EXIT SNR	Transport paper detection signal to Compile Tray by SENSOR (Compile Exit Sensor)
TRANSPORT MOT A TRANSPORT MOT /A TRANSPORT MOT B TRANSPORT MOT /B	Drive control signal of the DRIVE ASSY TRANS.
COM NO PAPER SNR	Paper detection signal in Compiler Tray by SENSOR(COMPILE TRAY NO PAPER)
F TAMPER HOME SNR	Front Tamper home position detection signal by SENSOR (FRONT TAMPER HOME SENSOR)
R TAMPER HOME SNR	Rear Tamper home position detection signal by SENSOR (REAR TAMPER HOME SENSOR)
R TAMPER A R TAMPER /A R TAMPER B R TAMPER /B	Drive control signal of the MOTOR ASSY TAMPER (REAR).
F TAMPER A F TAMPER /A F TAMPER B F TAMPER /B	Drive control signal of the MOTOR ASSY TAMPER (FRONT).

## § 3 STACKER



Signal line name	Description
STACK NO PAPER SNR	Paper detection signal in Stack Tray by SENSOR (STACKER NO PAPER SENSOR)
EJECT CLAMP HOME SNR	Eject Clamp home position detection signal by SENSOR (EJECT CLAMP HOME SENSOR)
SET CLAMP HOME SNR	Set Clamp home position detection signal by SENSOR (SET CLAMP HOME SENSOR)
STACK HEIGHT SNR1	Height detection signal of Stack Tray by SENSOR (STACKER HEIGHT SENSOR1)
STACK HEIGHT SNR2	Height detection signal of Stack Tray by SENSOR (STACKER HEIGHT SENSOR2)
SUB PAD SOL	SOLENOID ASSY(Sub Paddle Solenoid) ON/OFF control signal
SET CLAMP CLUTCH	CLUTCH Z34(Set Clamp Clutch) ON/OFF control signal
EJECT MOT A EJECT MOT /A EJECT MOT B EJECT MOT /B	Drive control signal of the MOTOR ASSY EJECT.
STACKER MOT A STACKER MOT /A STACKER MOT B STACKER MOT /B	Drive control signal of the D MOTOR ASSY STACKER.

## § 4 STAPLER



Signal line name	Description
STAPLE CW(+) STAPLE CCW(-)	Drive control signal of the Staple Motor.
STAPLE HOME SNR	Stapler Head home position detection signal by Staple Home Sensor in STAPLER ASSY
LOW STAPLE SNR	Detection signal of the needle of Stapler by Low Staple Sensor in STAPLER ASSY.

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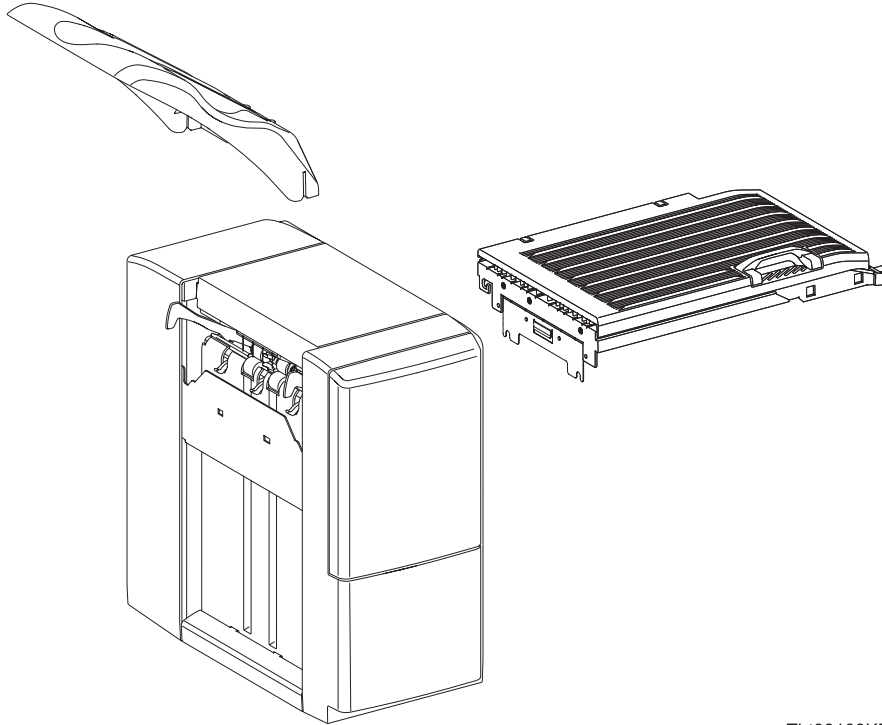
## **Chapter 8 Printer Specifications CONTENTS**

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## 1. Configuration of Finisher

### 1.1 Basic Configuration

The Finisher consists of "Horizontal-Transport", "Stacker Tray", and "Finisher Main Unit".  
The Finisher functions only when installed to the printer.



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## **2. Electrical Properties**

### **2.1 Power Supply**

The Finisher receives AC power from the printer it is connected to (100 to 240 VAC).

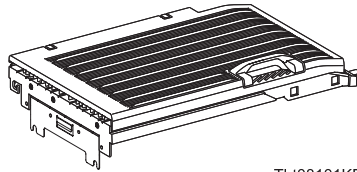
### **2.2 Power Consumption**

65 VA or less

### 3. Mechanical Properties

#### 3.1 Dimensions/Mass of Horizontal-Transport

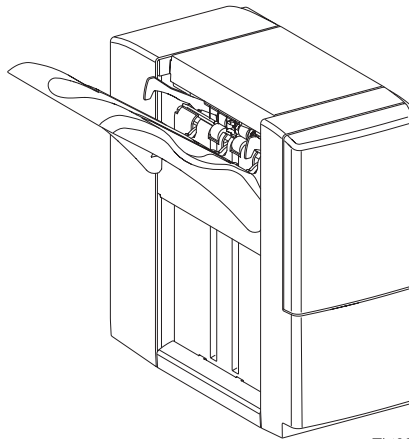
Width (mm)	Depth (mm)	Height (mm)	Mass (kg)
429.8	256.3	115.8	1.7 or less



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#### 3.2 Dimensions/Mass of Finisher

Width (mm)	Depth (mm)	Height (mm)	Mass (kg)
490.2	516	524.7	14.0 or less

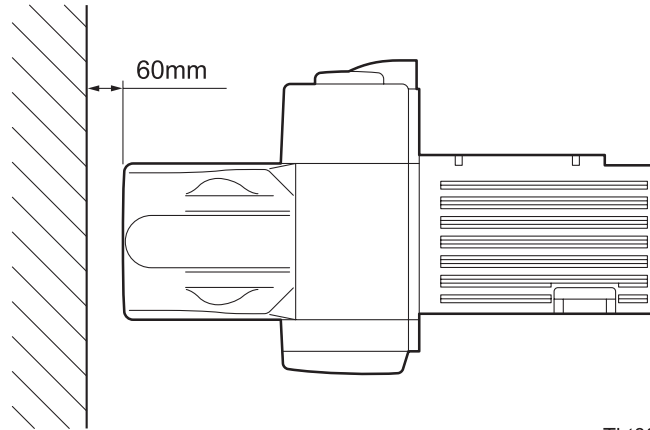


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### 3.3 Installation Requirements

The finisher requires the minimum installation space shown below for typical operation.  
(Space occupied by the operator is not included.)

#### Top view



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## 4. Functions

### 4.1 Stapling

- Stapling Position: Front Corner
- Maximum Stapling Capacity: 50 sheets (90 g/m<sup>2</sup> or less)
- Staple Capacity: 5,000 or more

### 4.2 Stacker Tray Ejection Mode

The ejection mode is automatically selected from Set Mode and Sheet Mode depending on the paper size.

- Set Mode: The sheets are deposited in the Compile Tray, and then ejected to the Stacker Tray.
- Sheet Mode: The sheets are directly ejected to the Stacker Tray. Offset stacking and stapling cannot be used in this mode.

### 4.3 Paper Stack Capacity

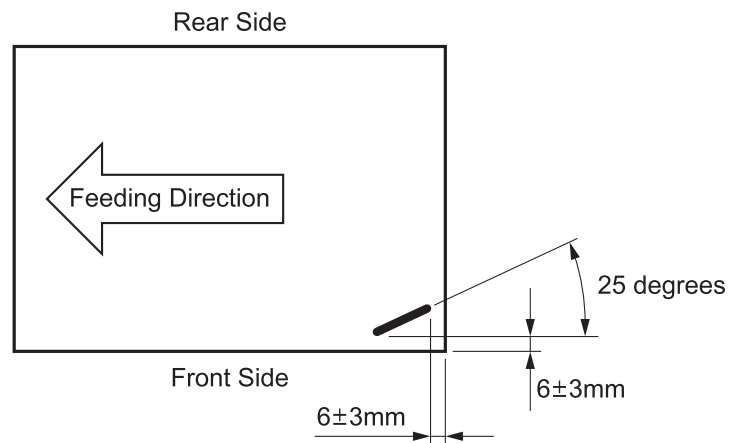
Tray	Paper Size	Non-staple	Staple
Stacker Tray (Set Mode)	A4 B5 A5 Letter Executive C5	1,000 sheets	50 sets or 750 sheets
	Legal	750 sheets	50 sets or 500 sheets
Stacker Tray (Sheet Mode)	Other than those above	300 sheets	-

### 4.4 Paper Size and Available Functions

Paper Size	Stacker		Offset	Staple
	Set Mode	Sheet Mode		
A4 (210 x 297 mm)	Yes	Yes	Yes	Yes
A5 (148 x 210 mm)	No	Yes	No	No
B5 (182 x 257 mm)	Yes	Yes	Yes	Yes
Letter (8.5 x 11 in.)	Yes	Yes	Yes	Yes
Folio (8.5 x 13 in.)	Yes	No	Yes	Yes
Legal (8.5 x 14 in.)	Yes	Yes	Yes	Yes
Executive (7.25 x 10.5 in.)	Yes	Yes	Yes	Yes
Envelope #10 (4.125 x 9.5 in.)	No	Yes	No	No
Monarch (3.875 x 7.5 in.)	No	Yes	No	No

Yes: Supported No: Not Supported

## 4.5 Stapling Position



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## 4.6 Processing Speed

The processing speed of the Finisher depends on that of the Printer.

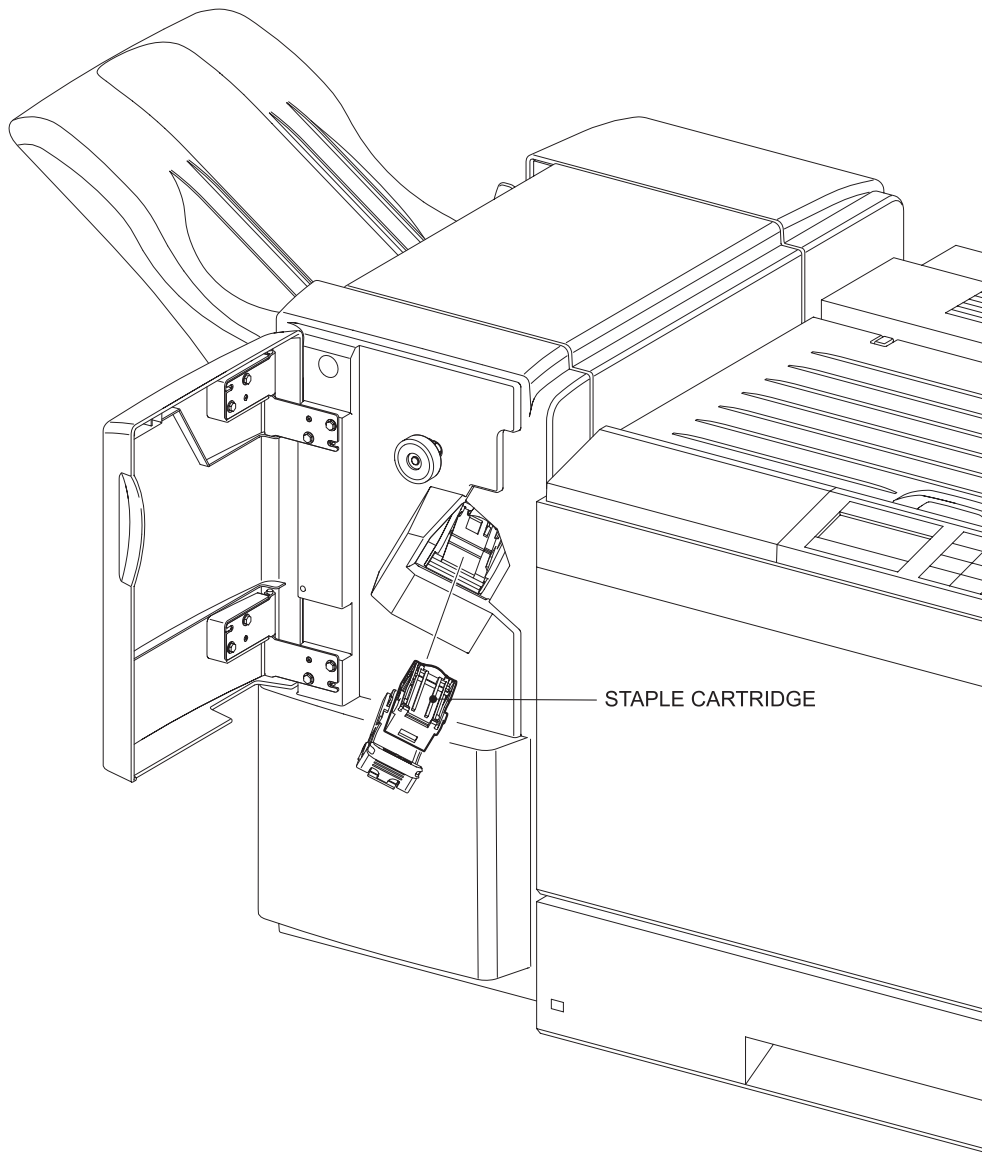
## 5. Consumables

### 5.1 Items of Consumables

- Staple cartridge

### 5.2 Consumable Life

- Staple cartridge: 5,000 staples



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## **6. Operating Environment**

### **6.1 Ambient Temperature/Humidity**

The ambient temperature and humidity of the installation site shall be as follows:

At operation: 10-32 °C, 15-85%RH (Non-condensing)

### **6.2 Installation Levelness**

When secured to the Printer, the Finisher shall not malfunction at a tilt of 1° to the front, back, right, or left.

### **6.3 Ambient Lighting**

3000 lux or less (without direct sunlight)

## **7. Safety/Environment Conditions**

### **7.1 Safety Standard**

- 100V system
  - UL60950-1
  - CSA C22.2 No.60950
- 220V system
  - IEC60950

### **7.2 EMI**

- 100/110V system (US)
  - FCC Part 15, Subpart B, Class B
- 220V system (EC)
  - EN55022, Class B